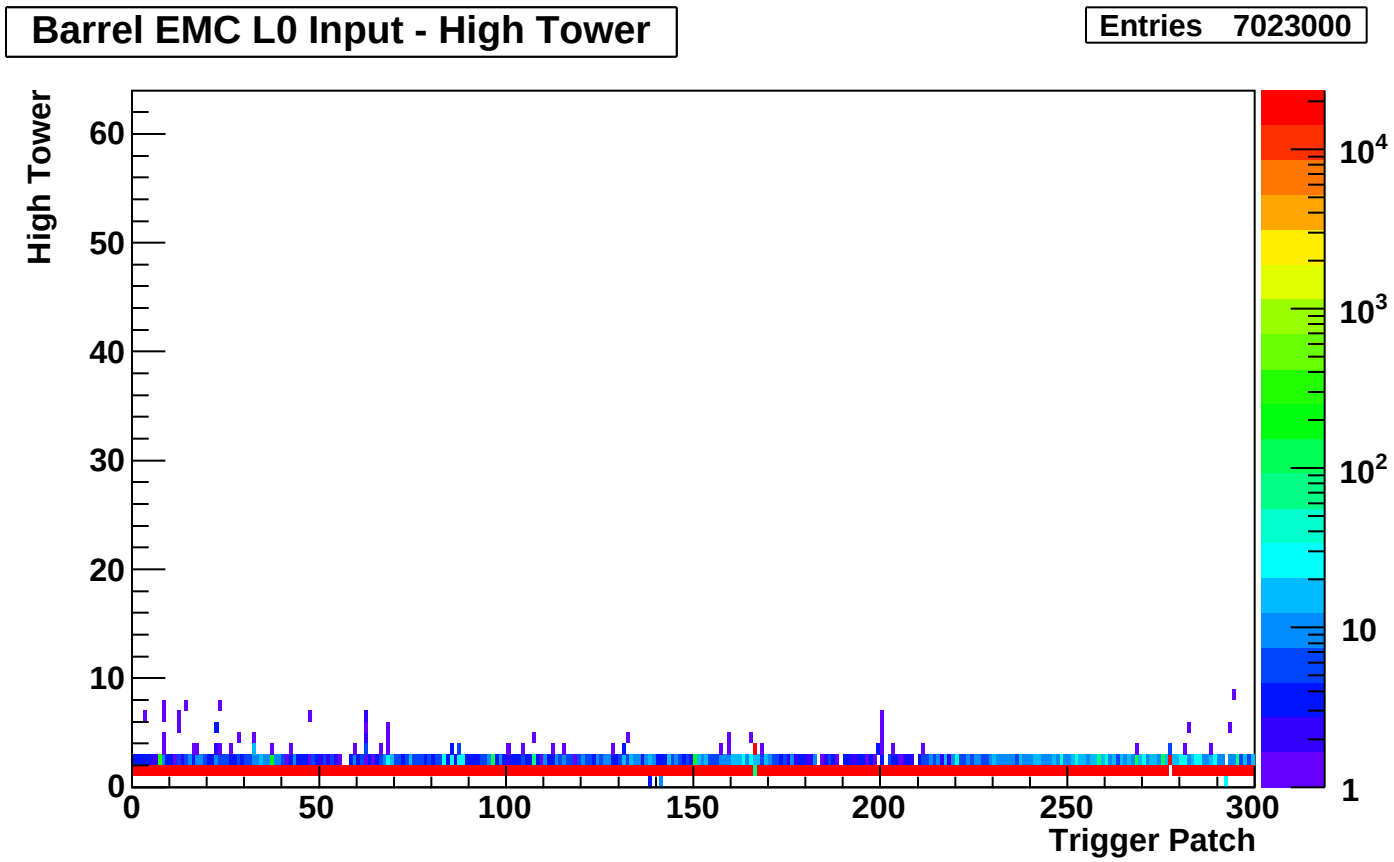
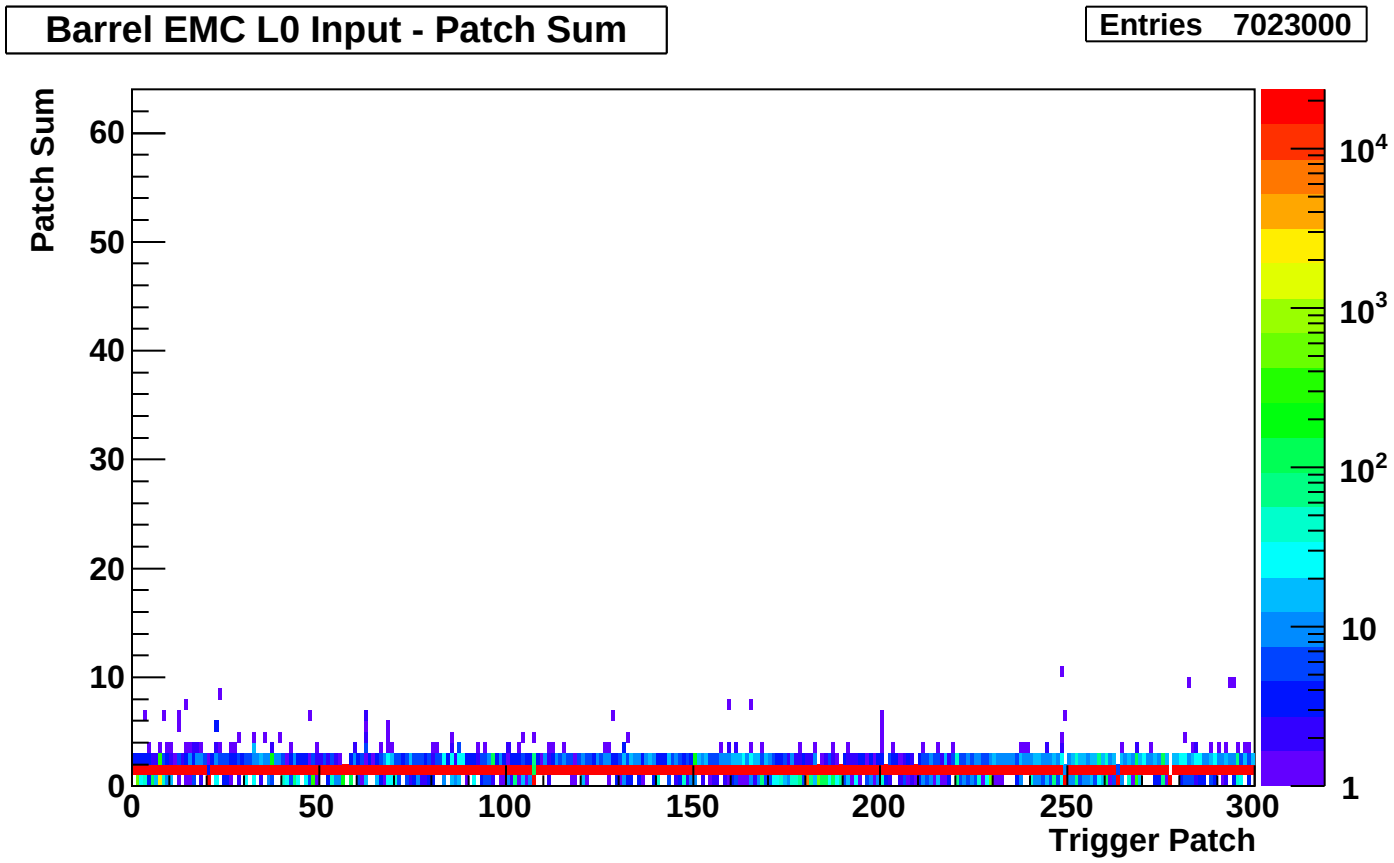
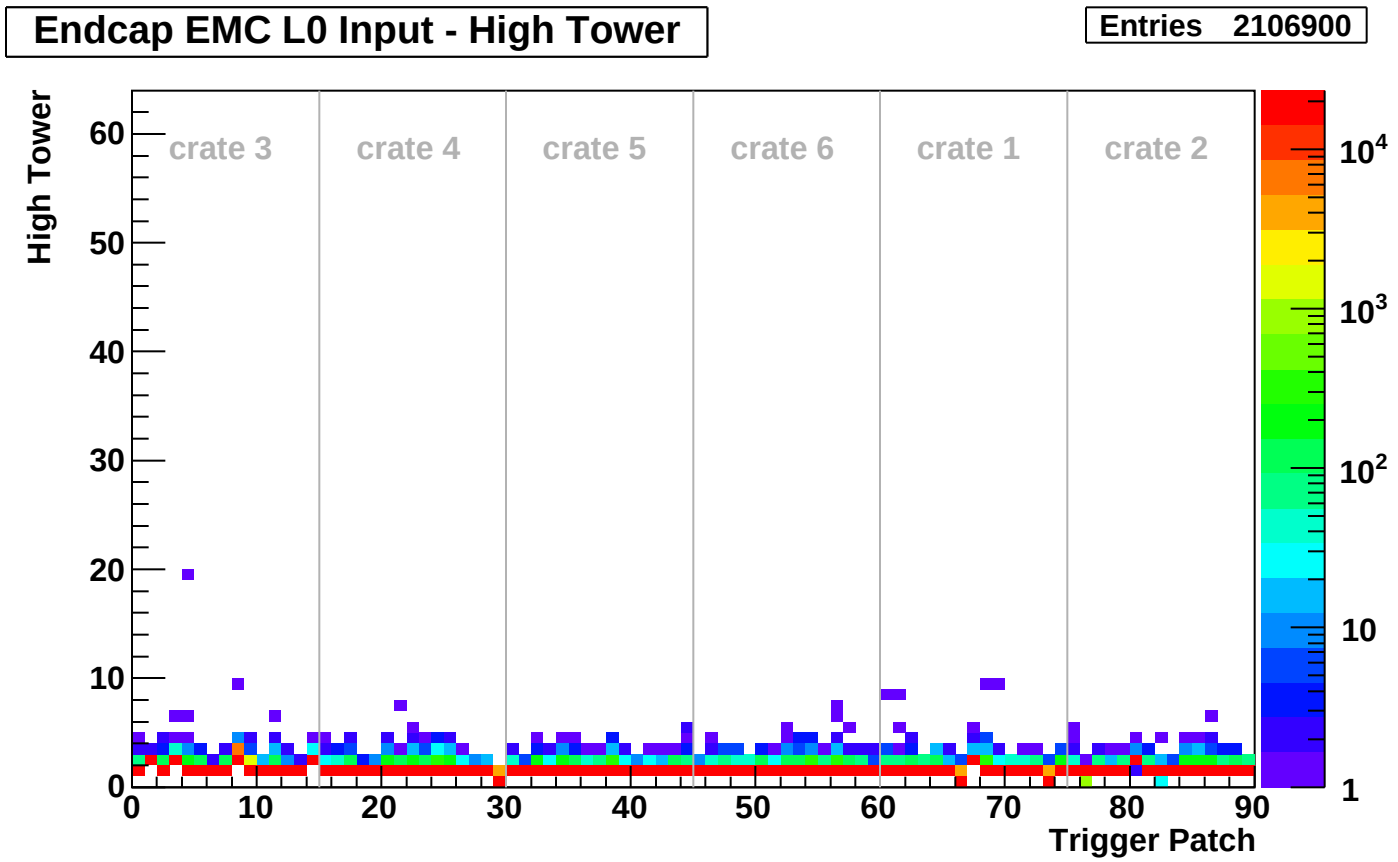
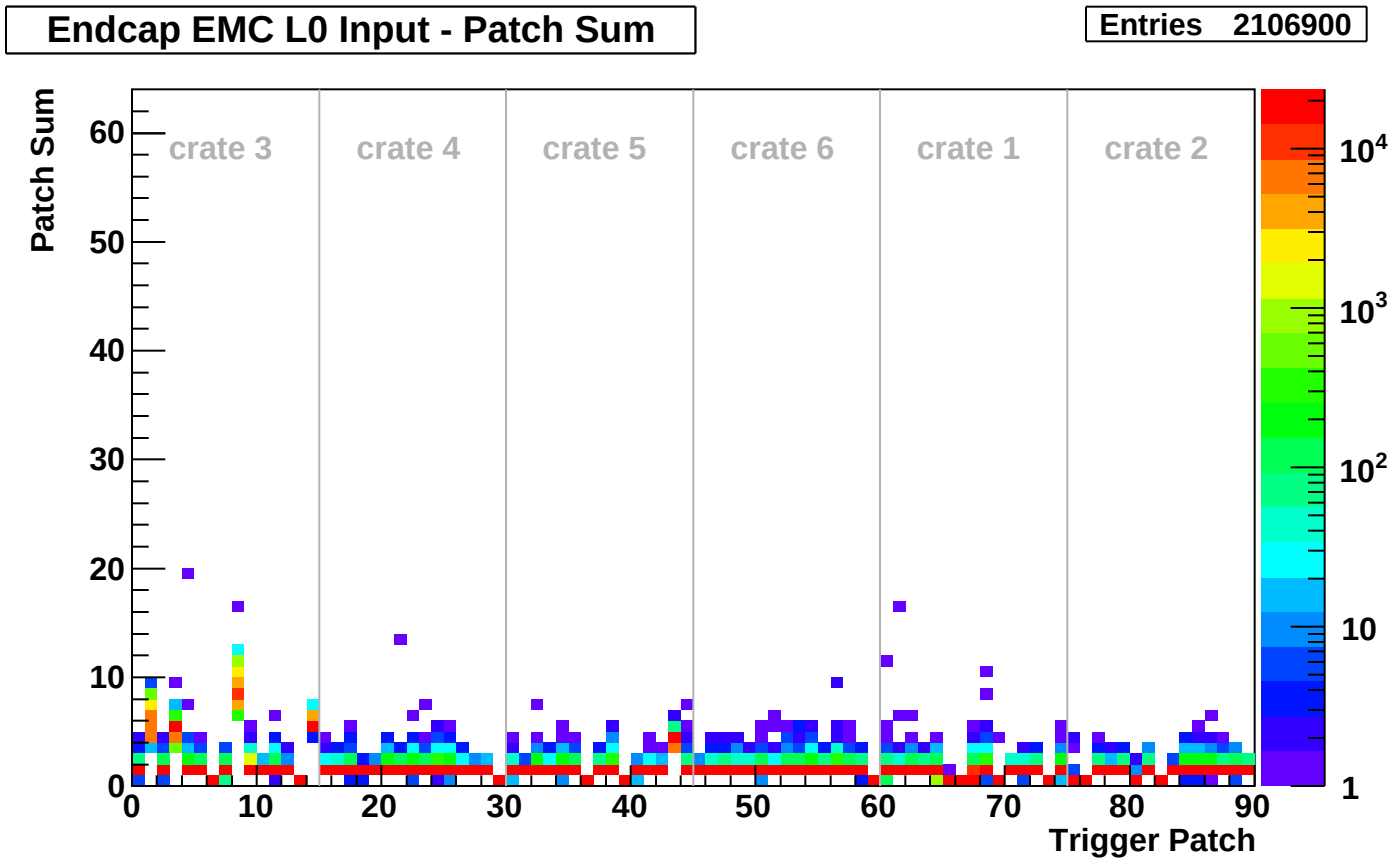
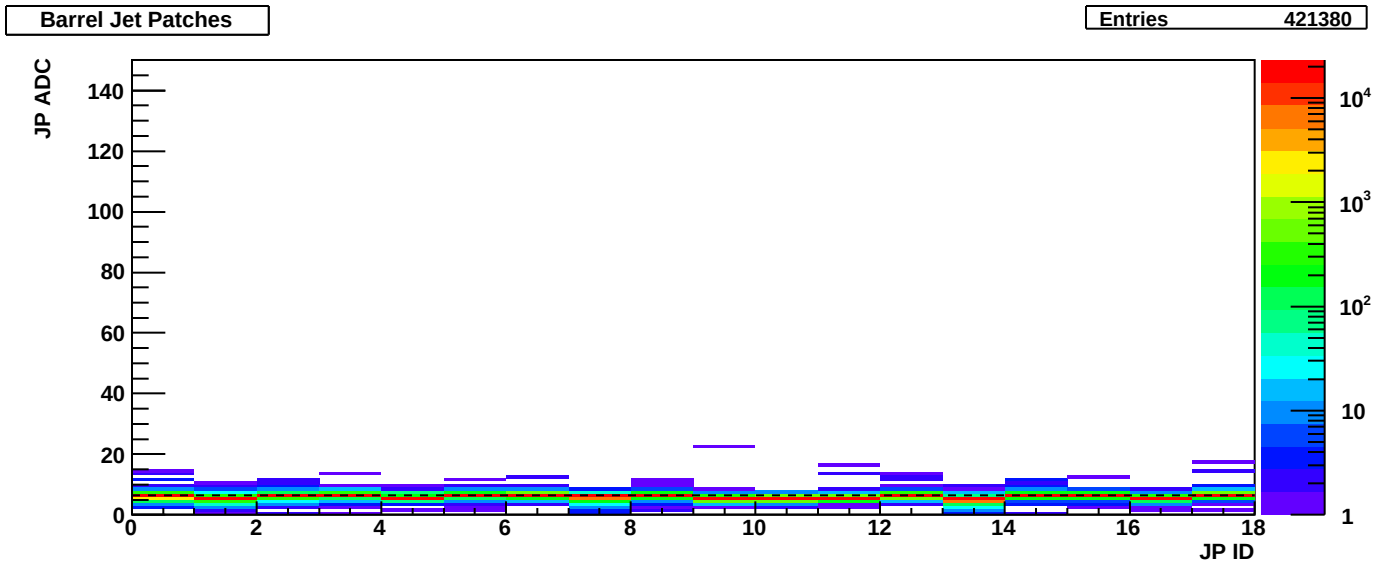
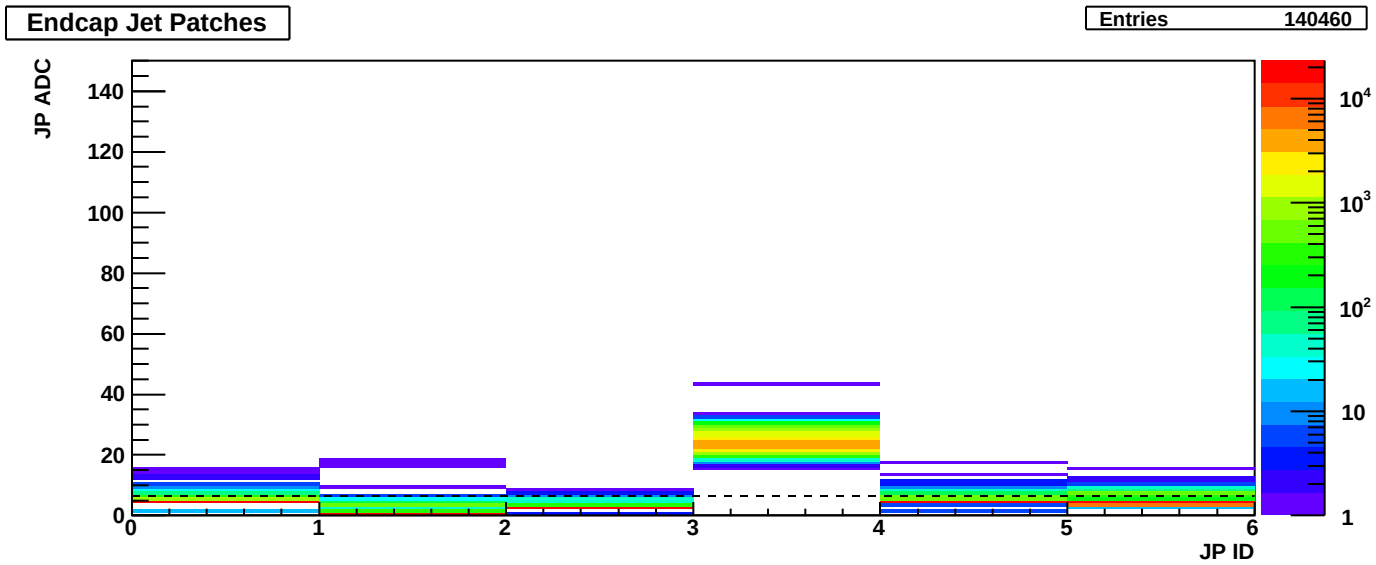

Barrel EMC L0 Input - High Tower
Entries 7023000
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

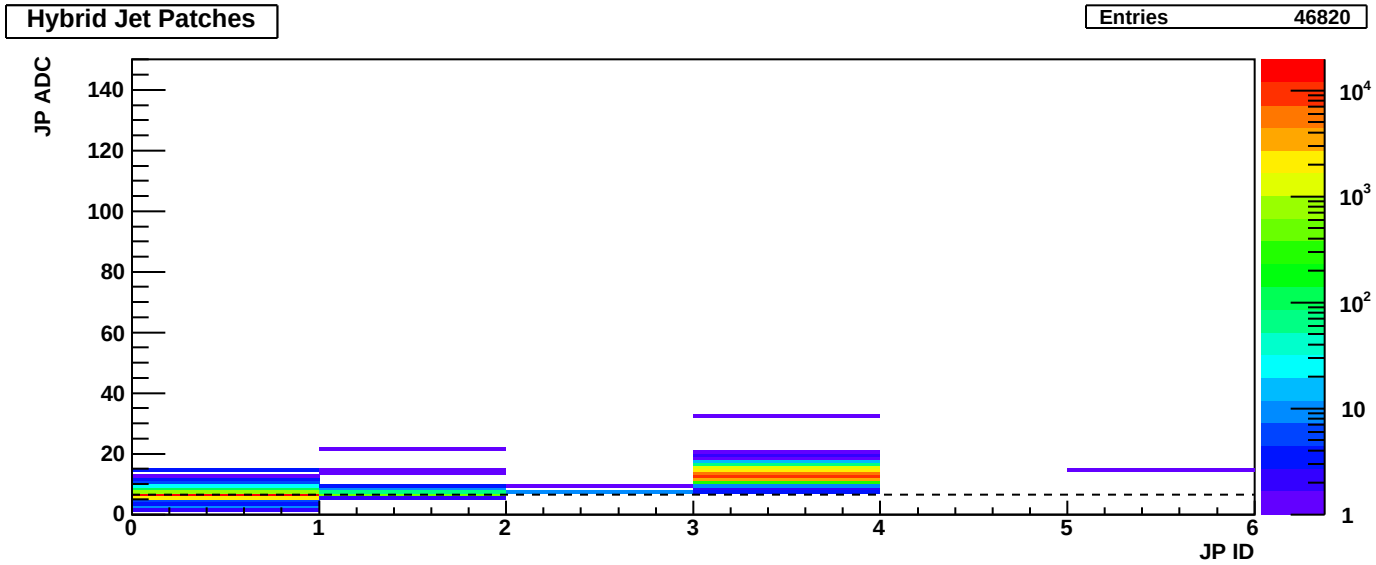

Barrel EMC L0 Input - Patch Sum
Entries 7023000
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

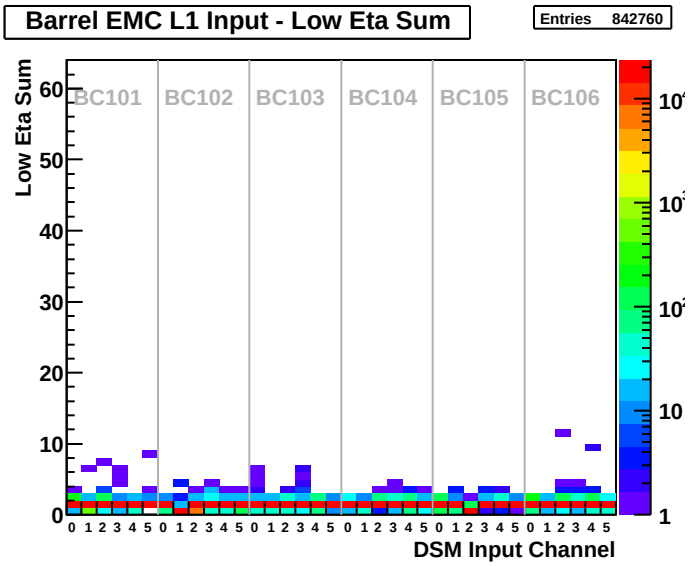

Endcap EMC L0 Input - High Tower
Entries 2106900
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

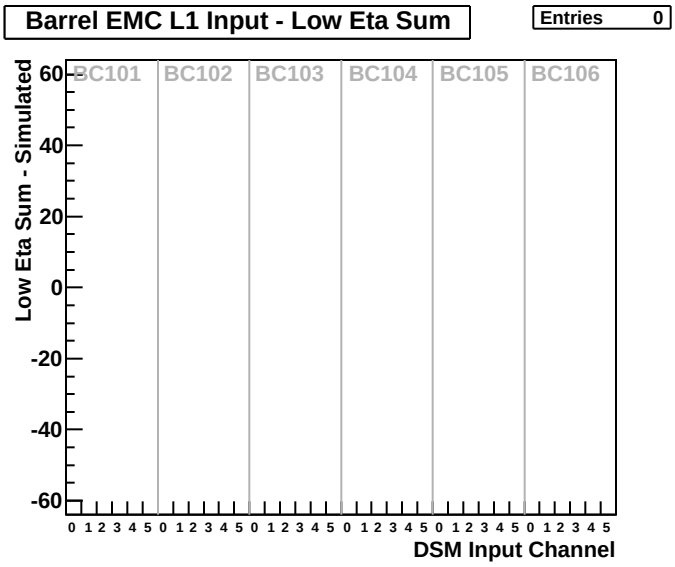

Endcap EMC L0 Input - Patch Sum
Entries 2106900
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

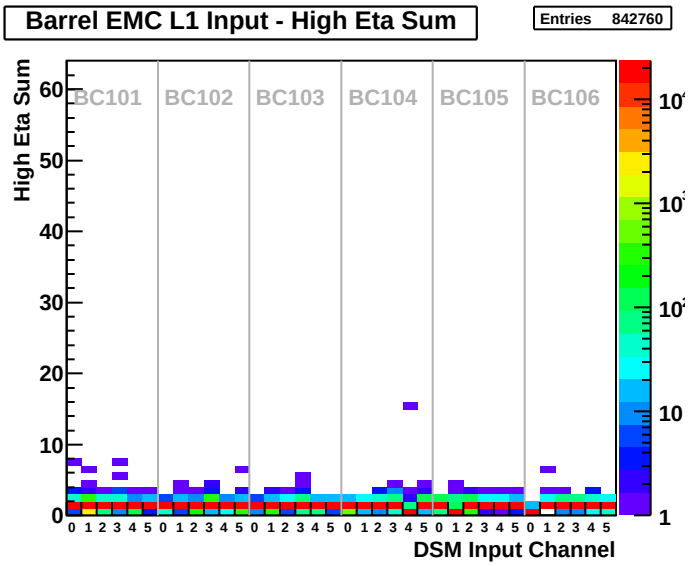

Barrel Jet Patches
Entries 421380
JP ADC
JP ID

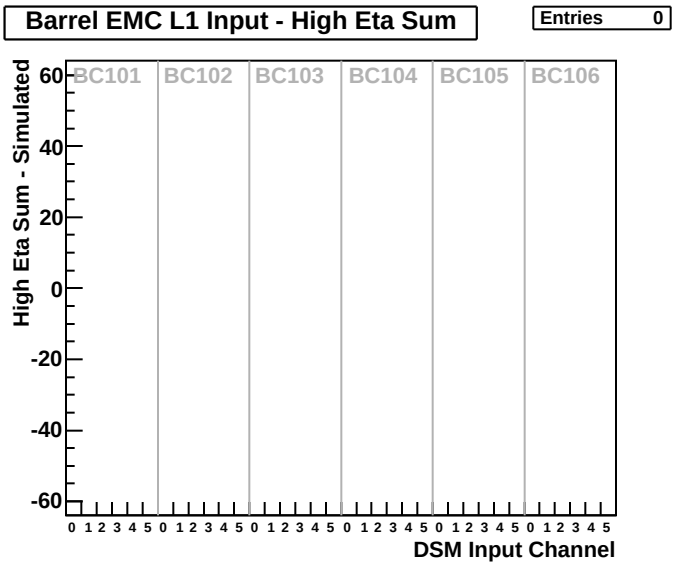

Endcap Jet Patches
Entries 140460
JP ADC
JP ID

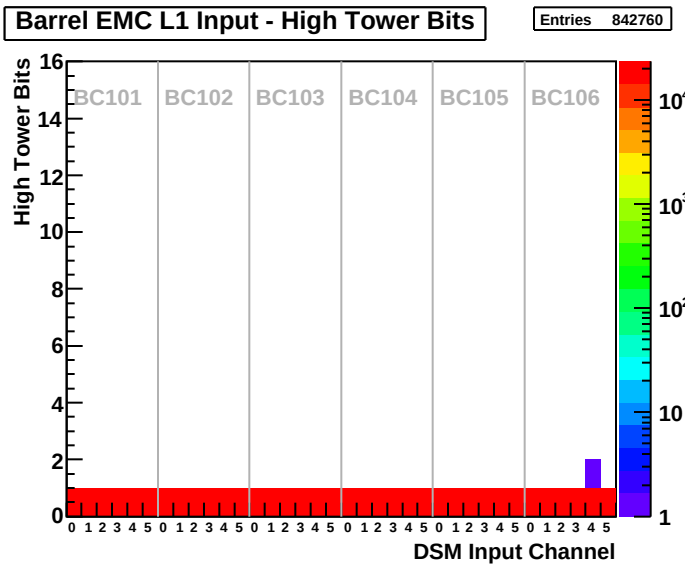

Hybrid Jet Patches
Entries 46820
JP ADC
JP ID

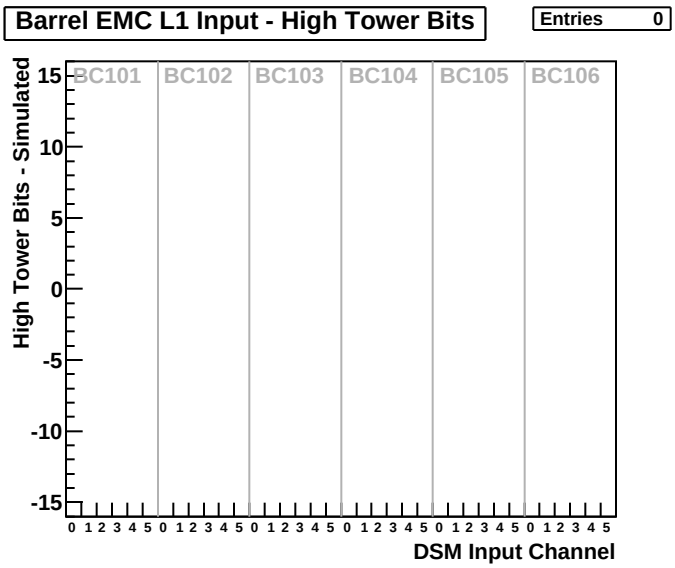

Barrel EMC L1 Input - Low Eta Sum
Entries 842760
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

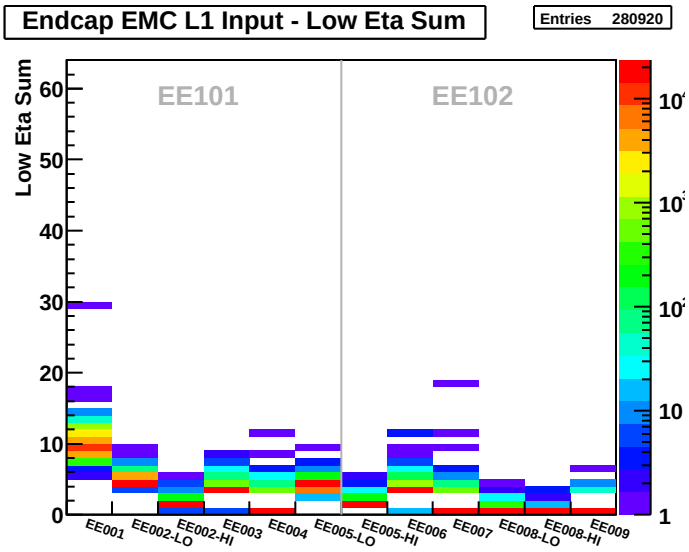

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

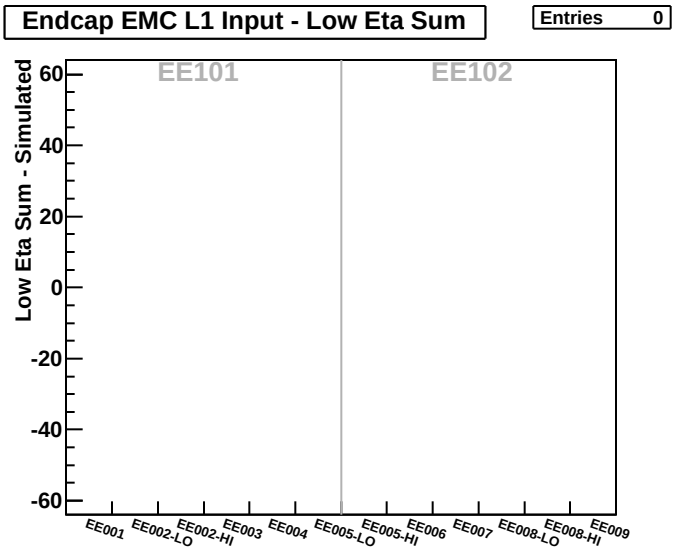

Barrel EMC L1 Input - High Eta Sum
Entries 842760
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

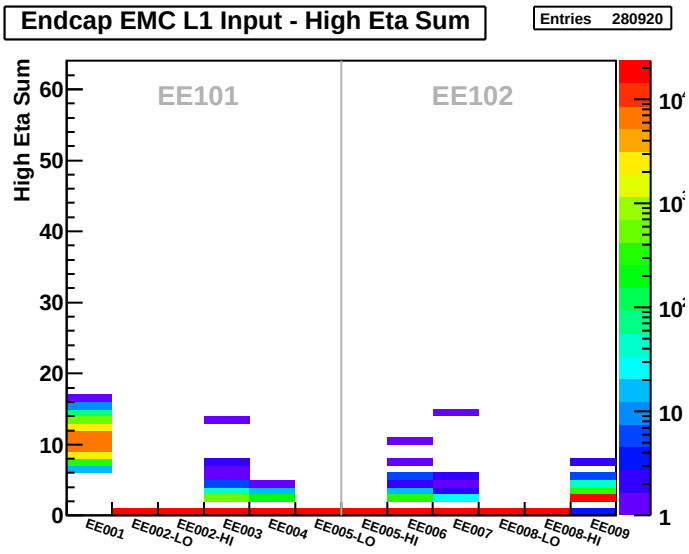

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

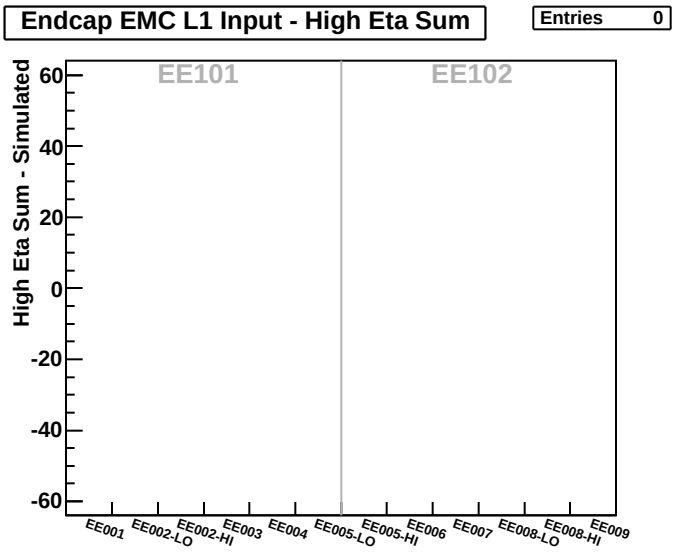

Barrel EMC L1 Input - High Tower Bits
Entries 842760
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

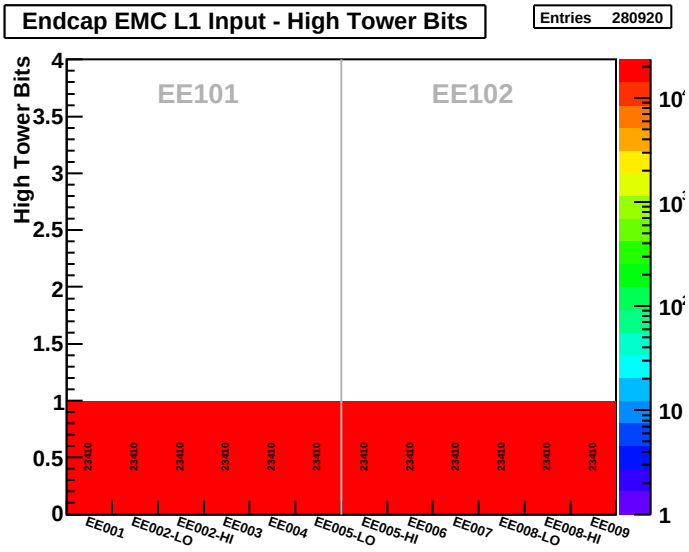

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

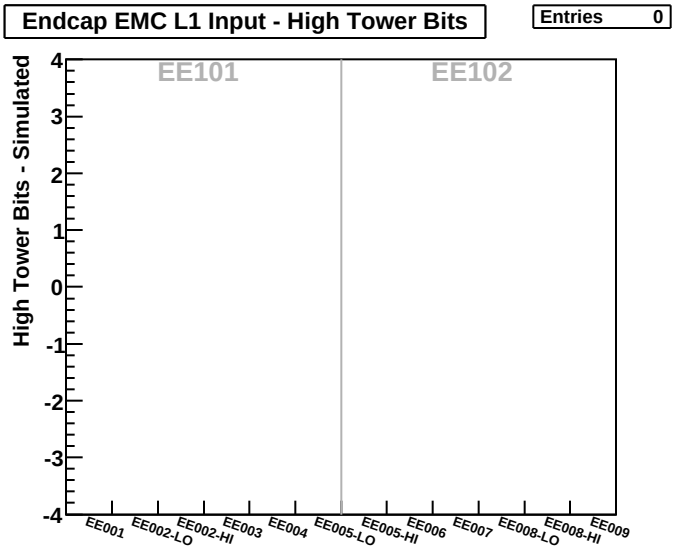

Endcap EMC L1 Input - Low Eta Sum
Entries 280920
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

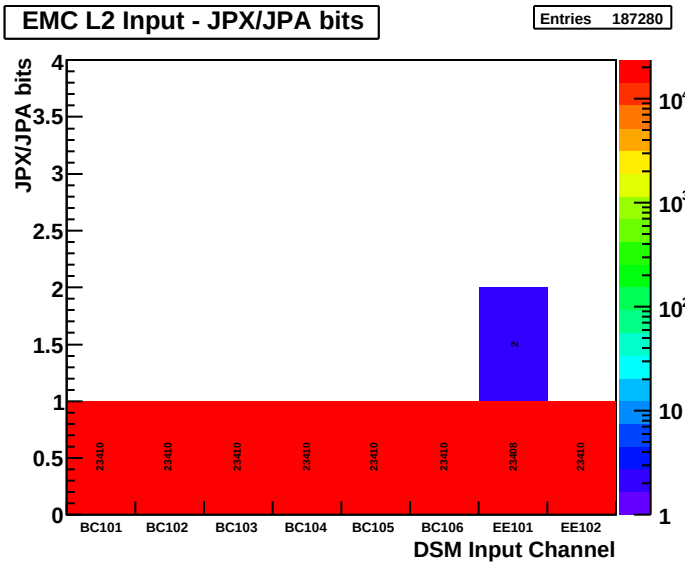

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

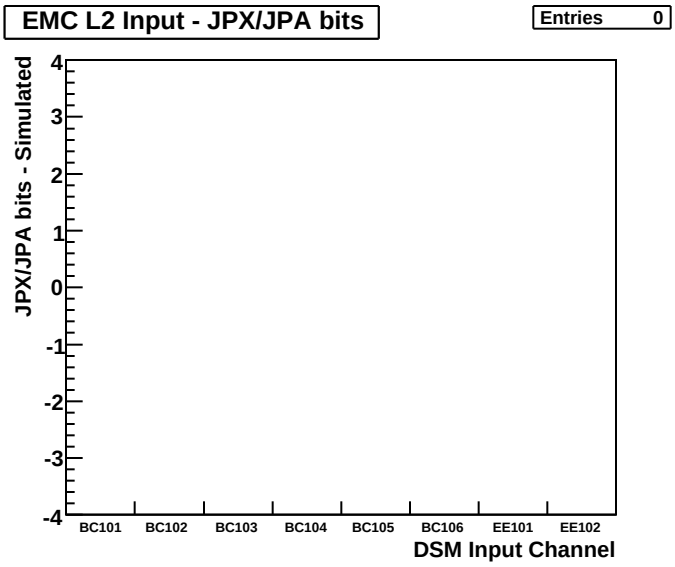

Endcap EMC L1 Input - High Eta Sum
Entries 280920
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

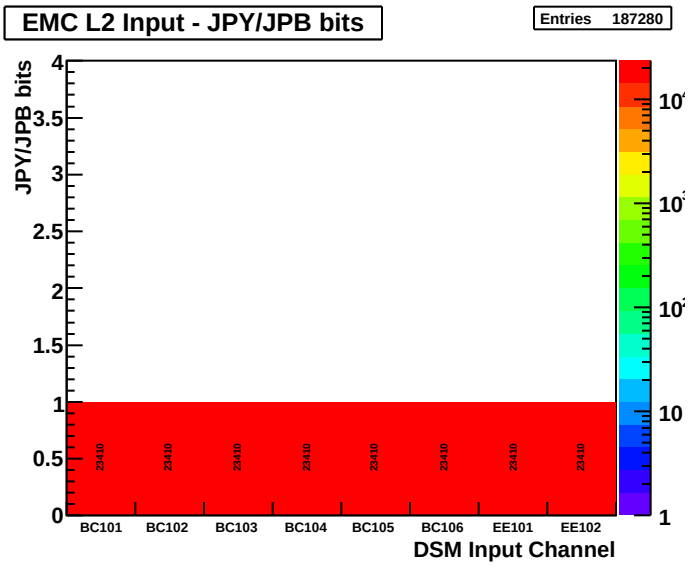

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

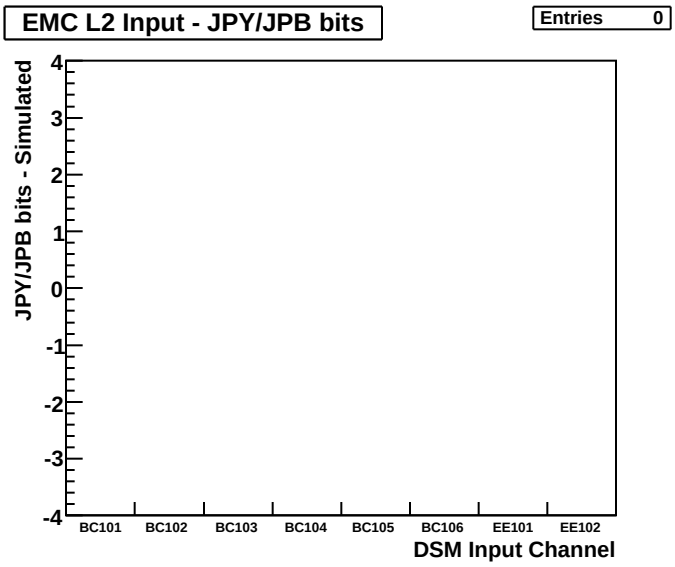

Endcap EMC L1 Input - High Tower Bits
Entries 280920
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

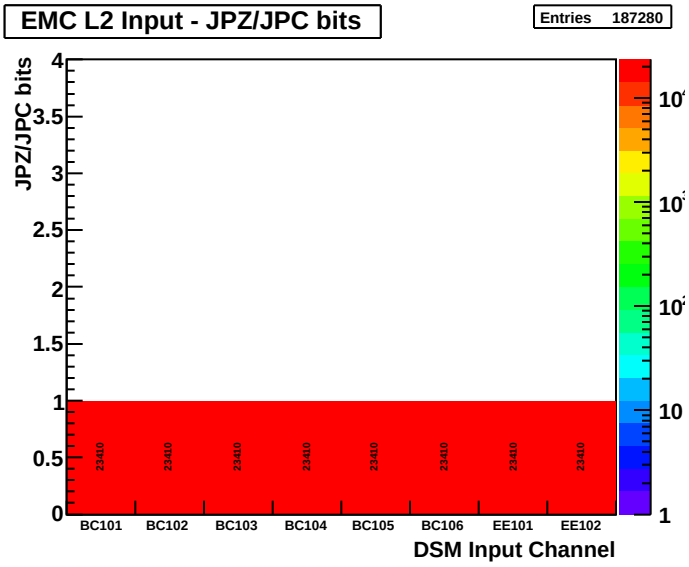

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

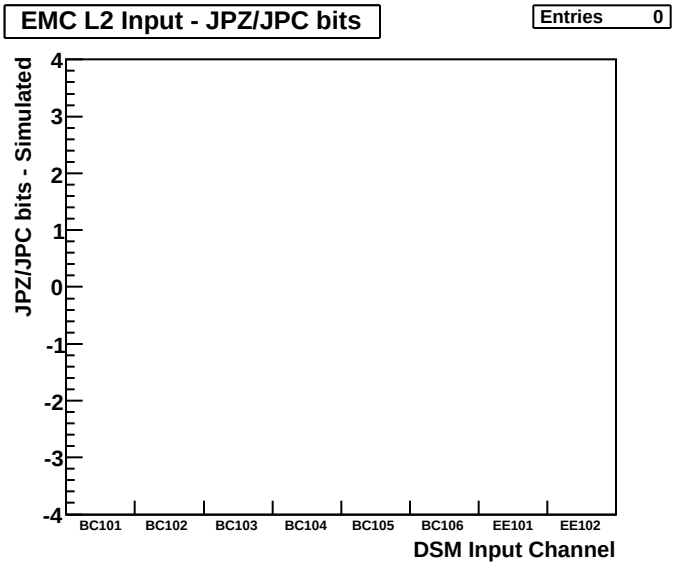

EMC L2 Input - JPX/JPA bits
Entries 187280
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
23410 23410 23410 23410 23410 23410 23408 23410
2

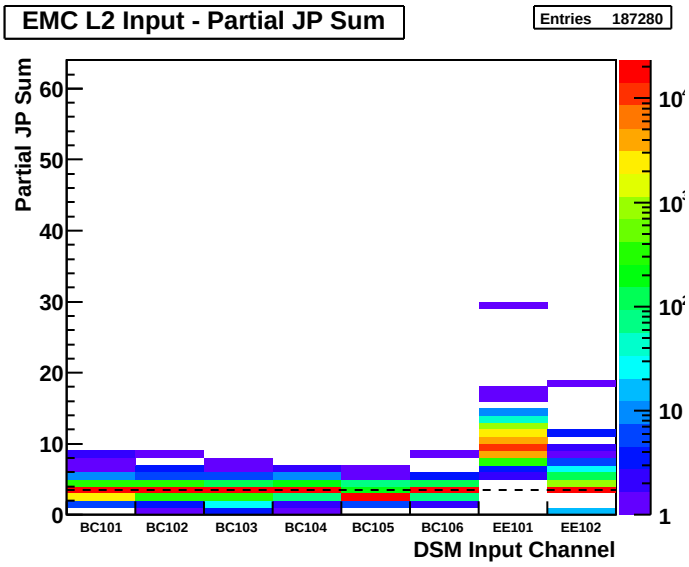

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

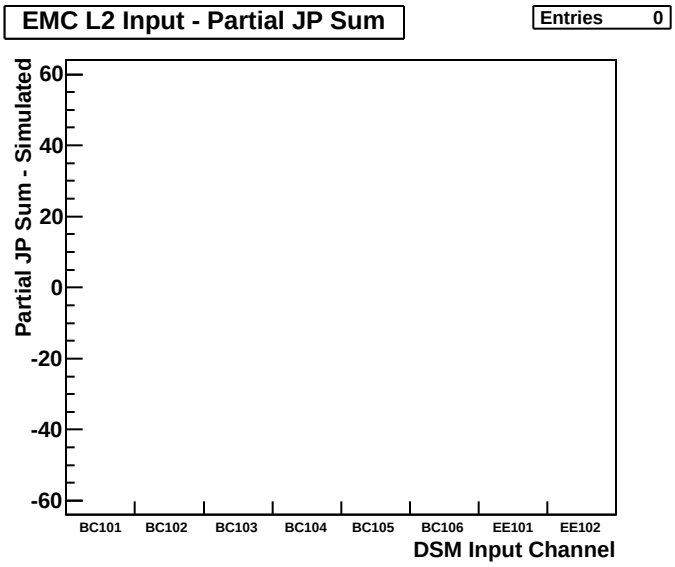

EMC L2 Input - JPY/JPB bits
Entries 187280
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
23410 23410 23410 23410 23410 23410 23410 23410

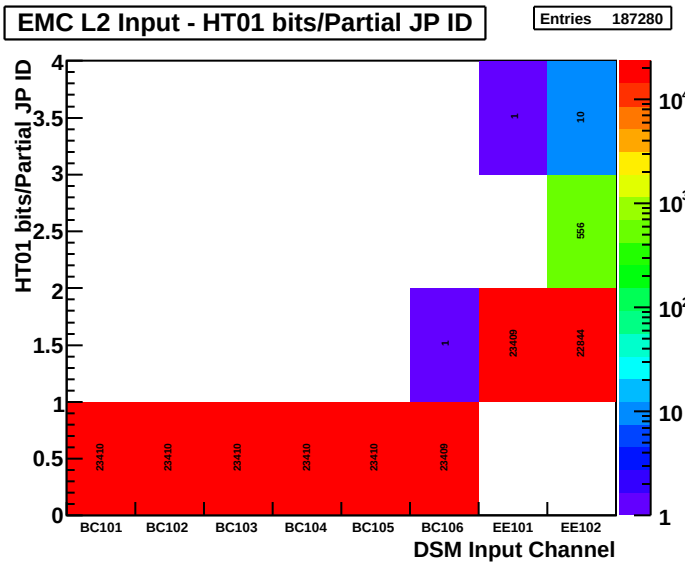

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

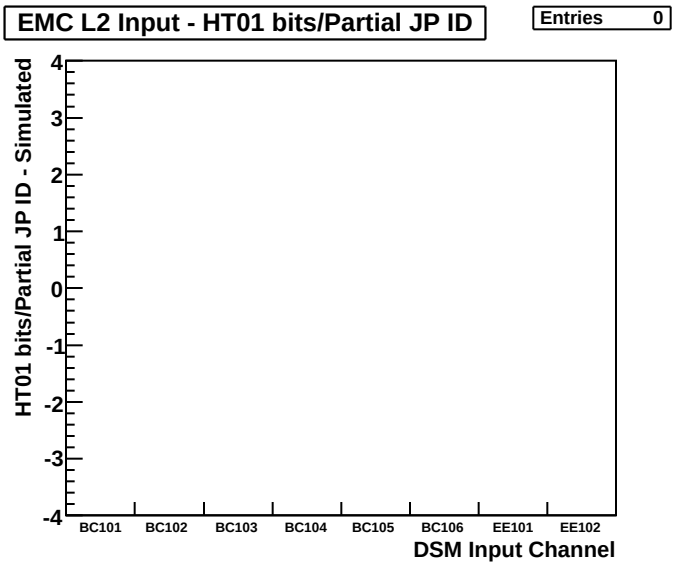

EMC L2 Input - JPZ/JPC bits
Entries 187280
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
23410 23410 23410 23410 23410 23410 23410 23410

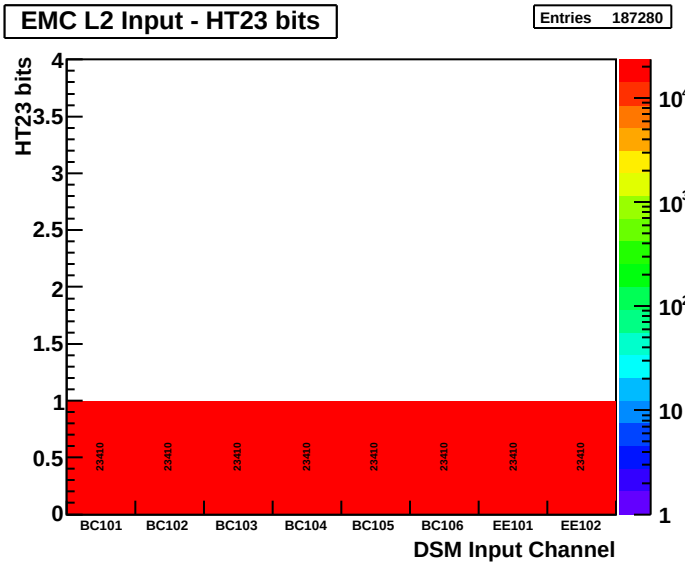

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

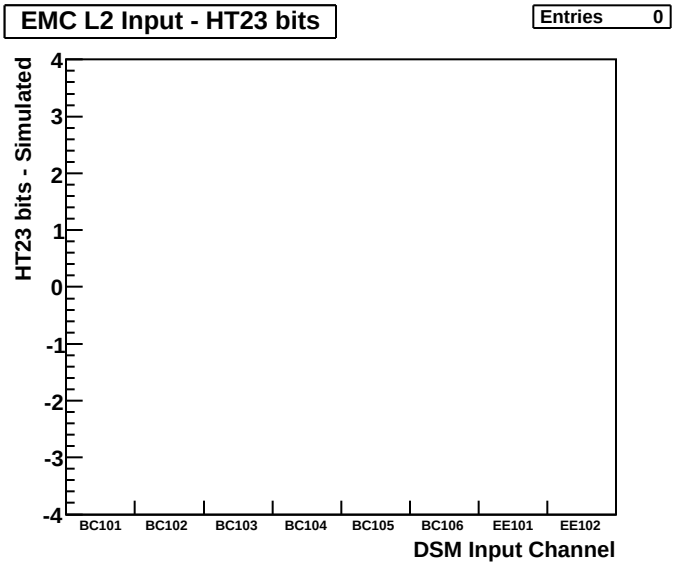

EMC L2 Input - Partial JP Sum
Entries 187280
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

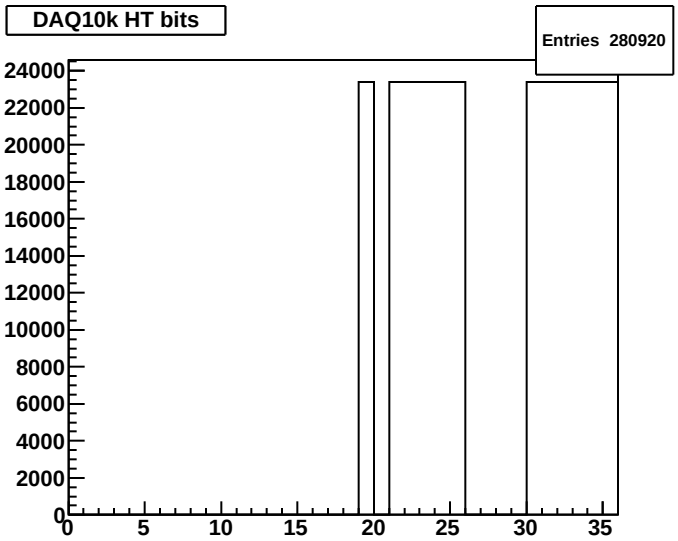

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

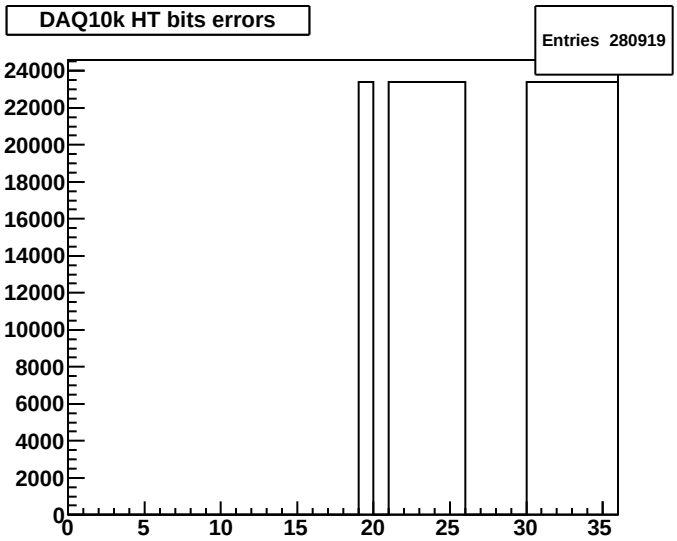

EMC L2 Input - HT01 bits/Partial JP ID
Entries 187280
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

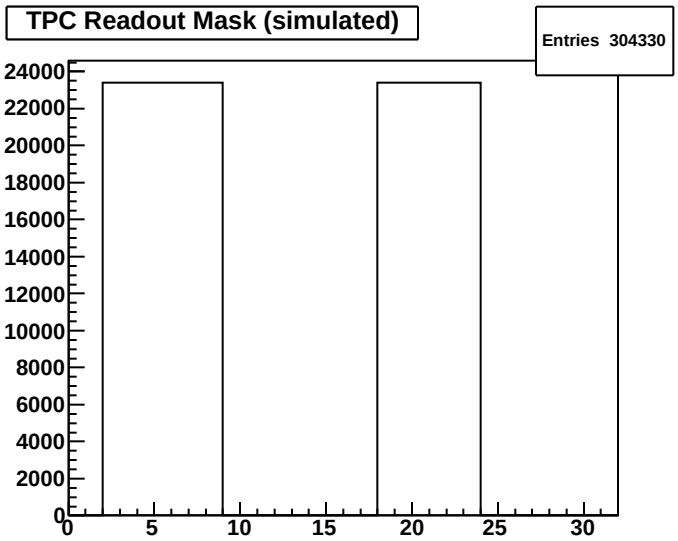

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

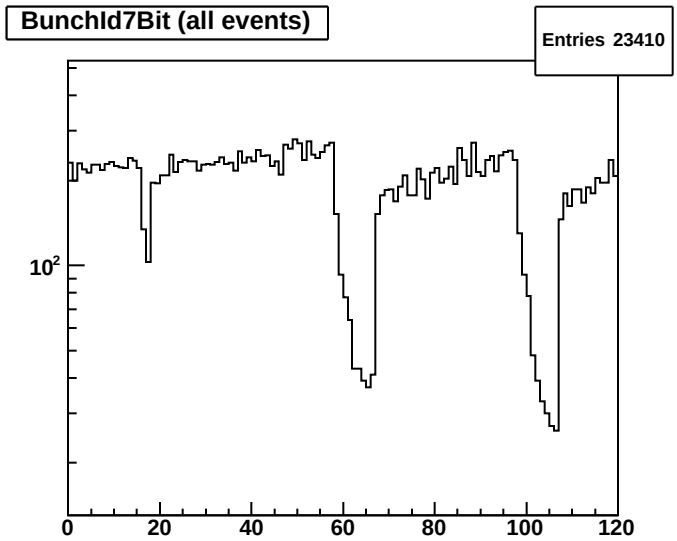

EMC L2 Input - HT23 bits
Entries 187280
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

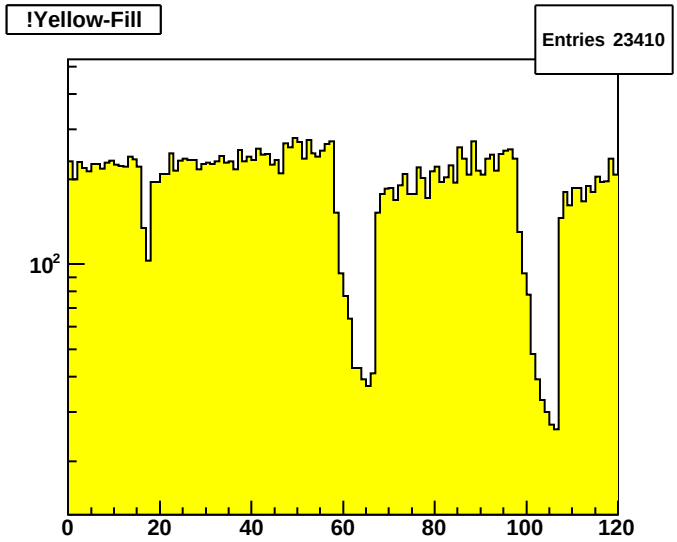

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

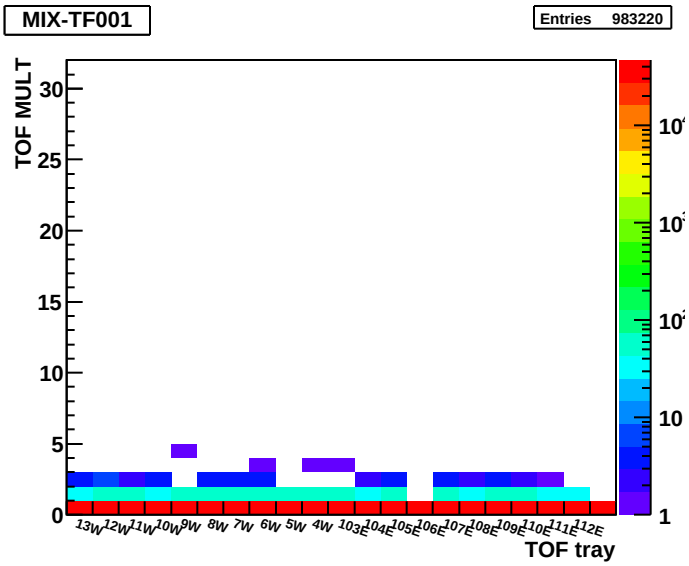

DAQ10k HT bits
Entries 280920
24000
22000
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
0
5
10
15
20
25
30
35

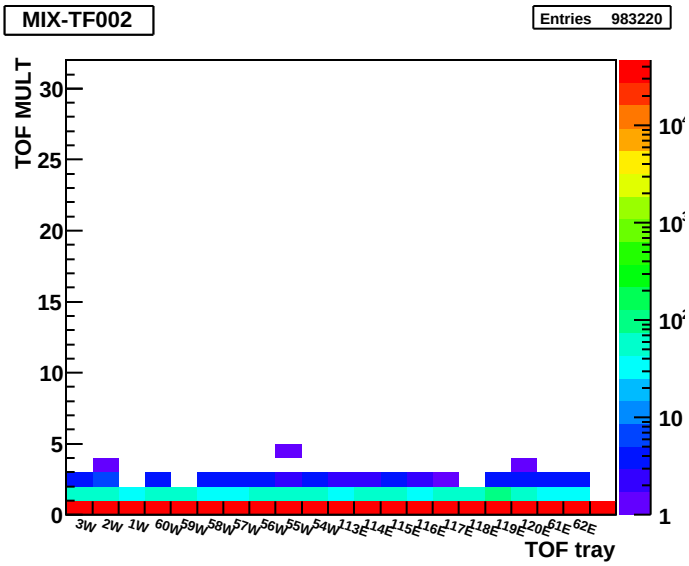

DAQ10k HT bits errors
Entries 280919
24000
22000
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
0
5
10
15
20
25
30
35

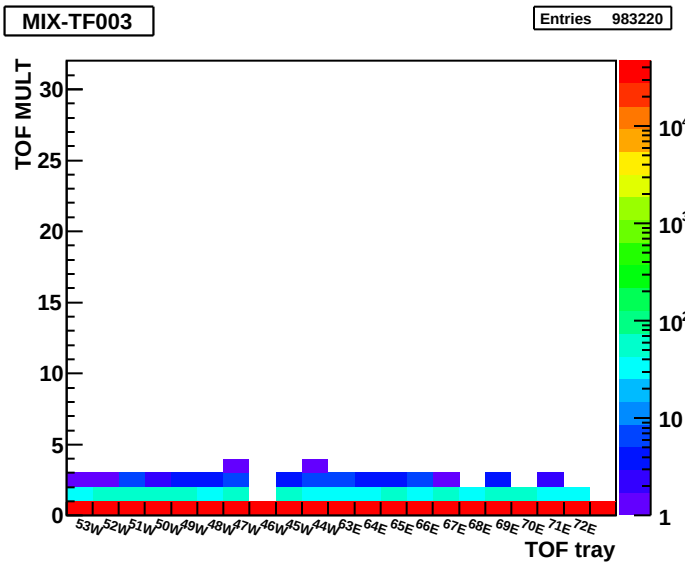

TPC Readout Mask (simulated)
Entries 304330
24000
22000
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
0
5
10
15
20
25
30

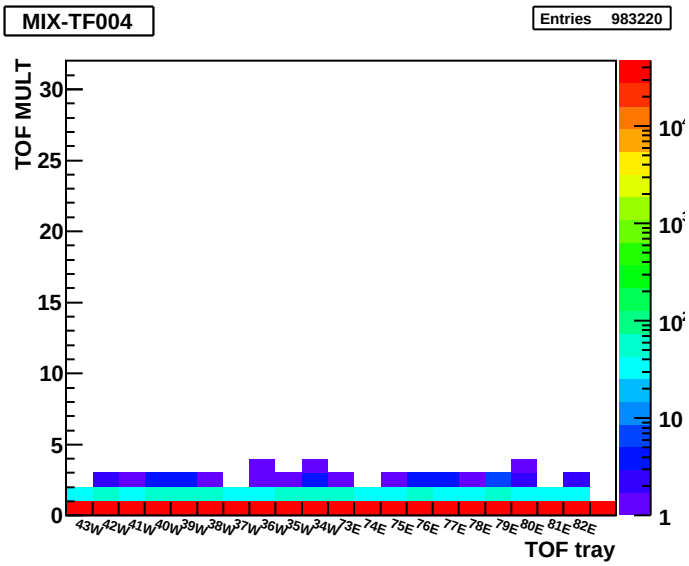

BunchId7Bit (all events)
Entries 23410
10^2
0
20
40
60
80
100
120

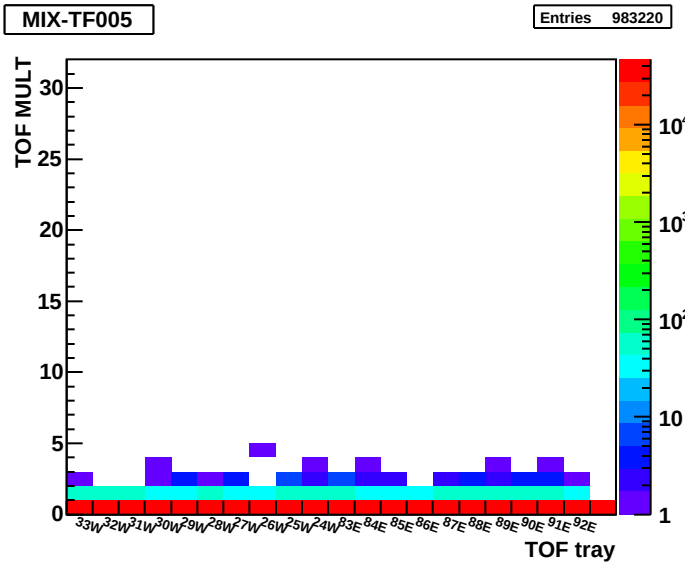

!Yellow-Fill
Entries 23410
10^2
0
20
40
60
80
100
120

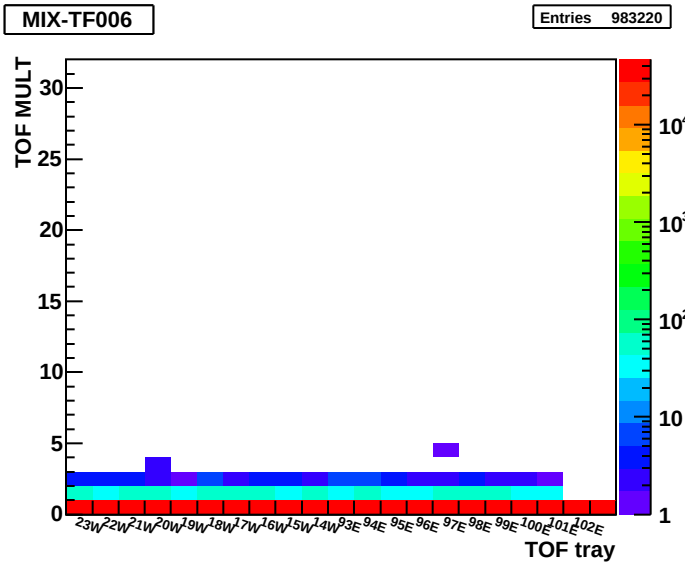

MIX-TF001
Entries 983220
TOF MULT
TOF tray

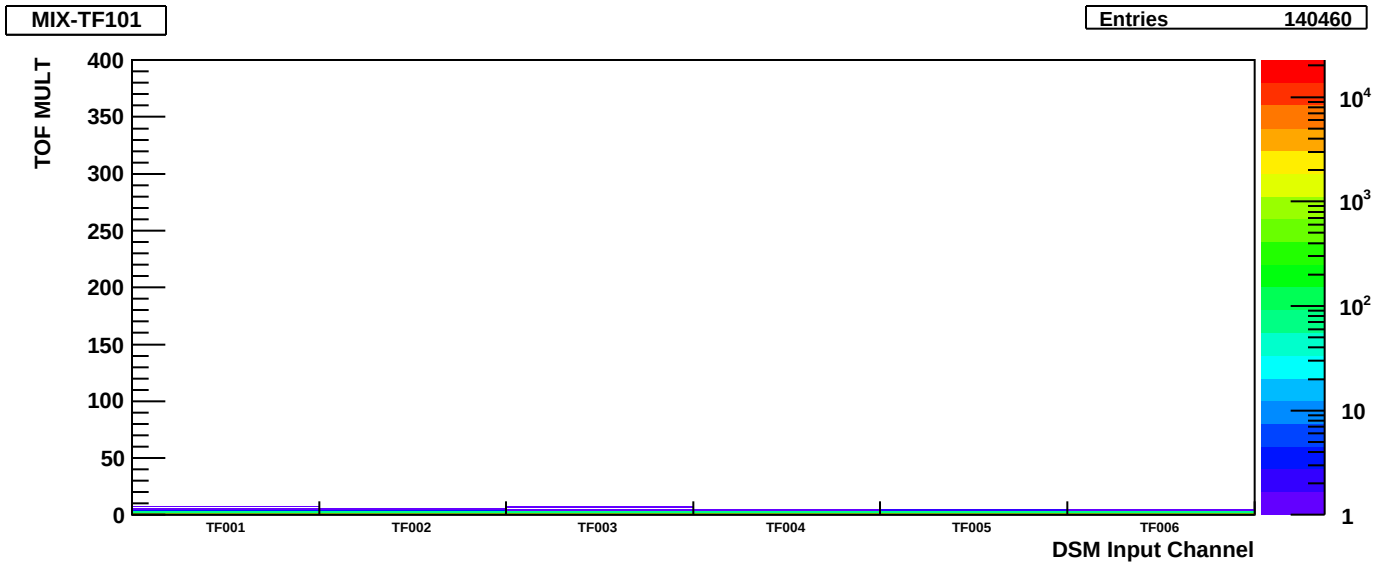

MIX-TF002
Entries 983220
TOF MULT
TOF tray

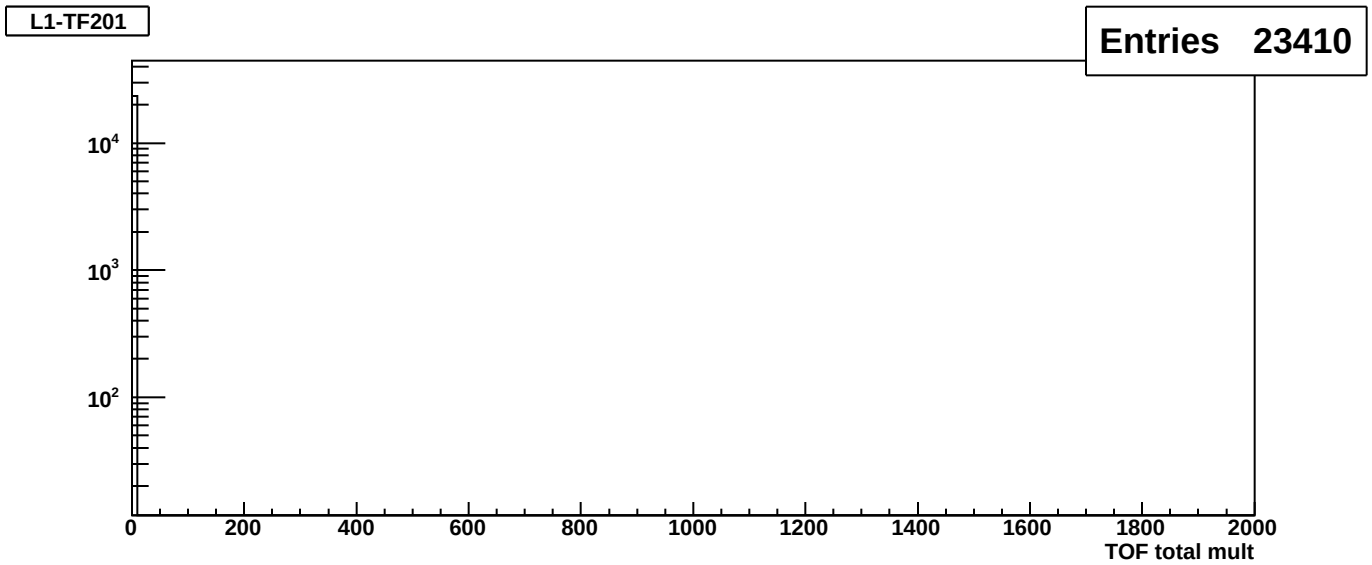

MIX-TF003
Entries 983220
TOF MULT
TOF tray

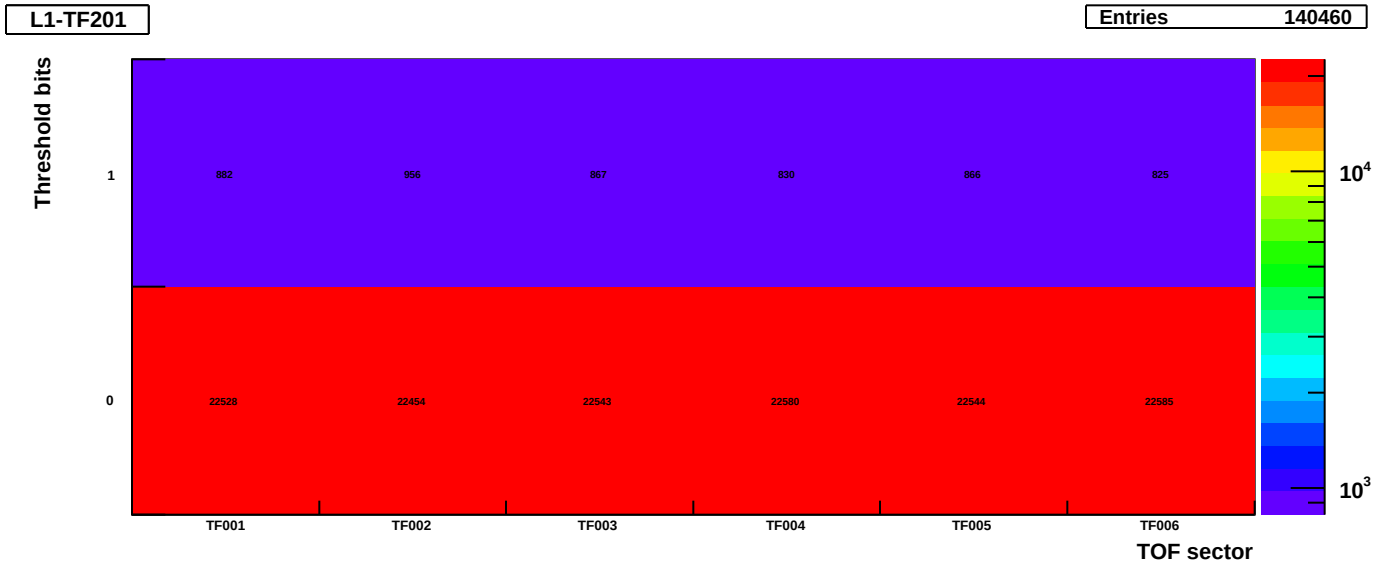

MIX-TF004
Entries 983220
TOF MULT
TOF tray

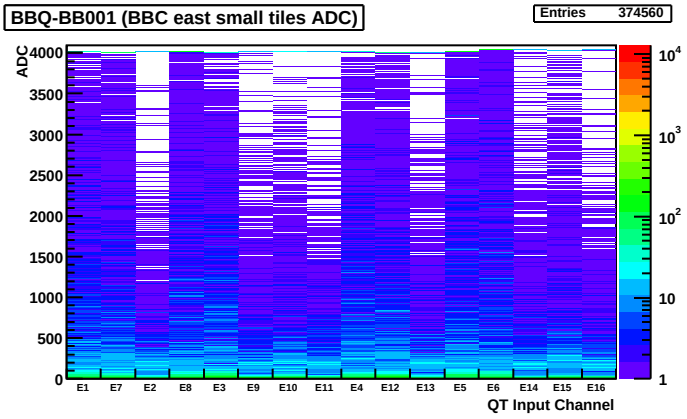

MIX-TF005
Entries 983220
TOF MULT
TOF tray

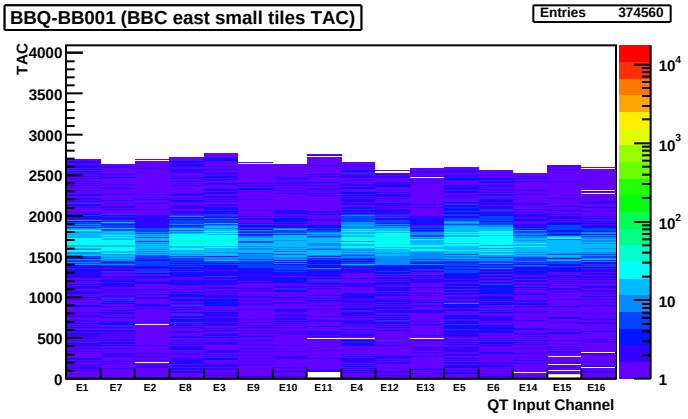

MIX-TF006
Entries 983220
TOF MULT
TOF tray

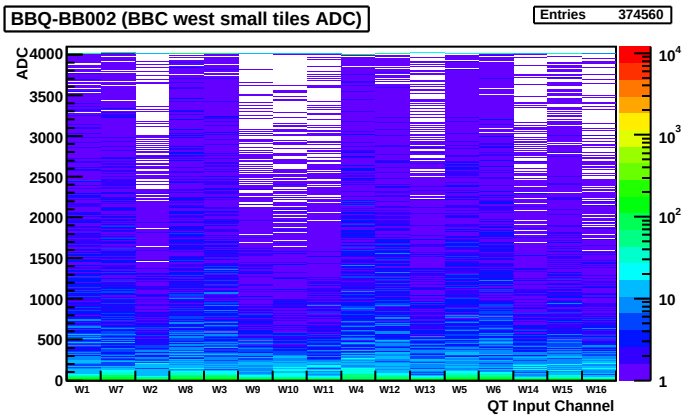

MIX-TF101
Entries 140460
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

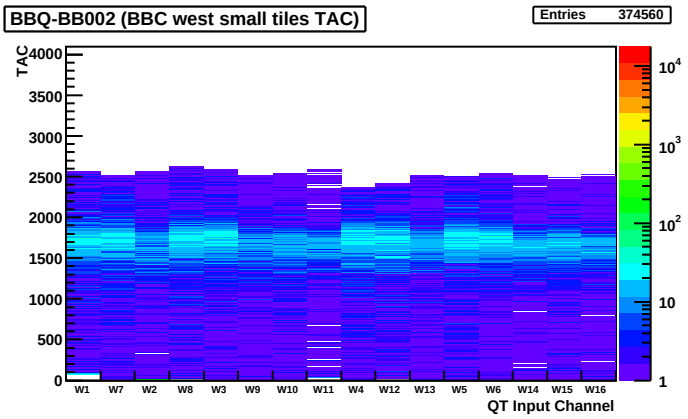

L1-TF201
Entries 23410
10^4
10^3
10^2
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

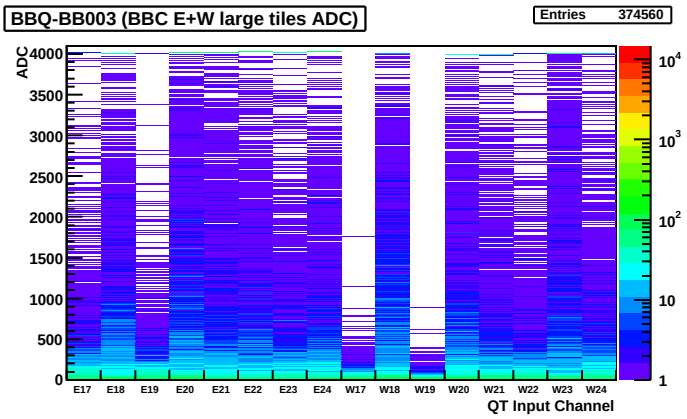

L1-TF201
Entries 140460
Threshold bits
1
0
882
956
867
830
866
825
22528
22454
22543
22580
22544
22585
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3

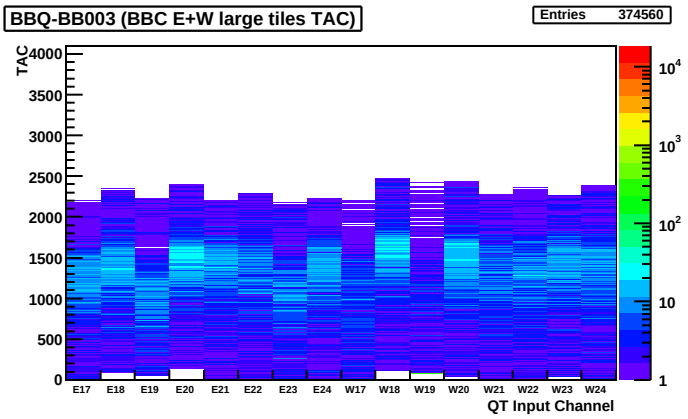

BBQ-BB001 (BBC east small tiles ADC)
Entries 374560
ADC
QT Input Channel

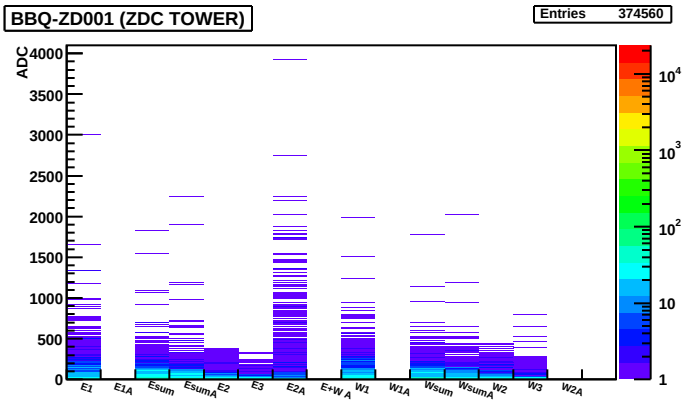

BBQ-BB001 (BBC east small tiles TAC)
Entries 374560
TAC
QT Input Channel

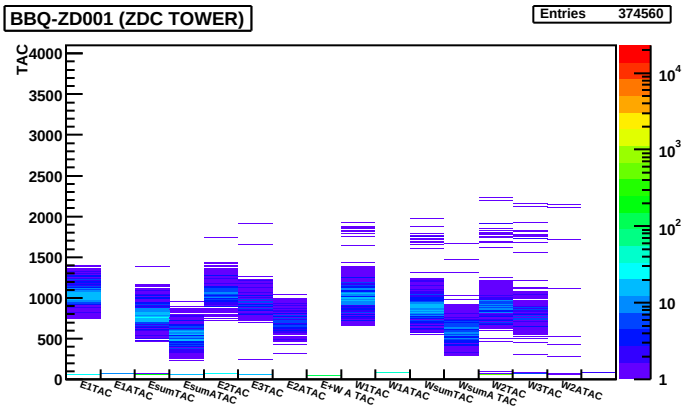

BBQ-BB002 (BBC west small tiles ADC)
Entries 374560
ADC
QT Input Channel

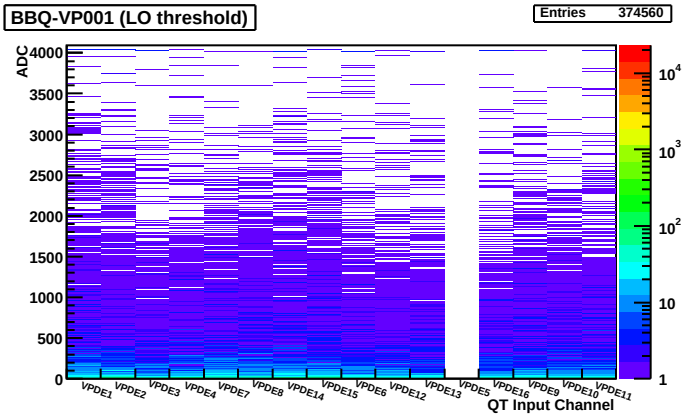

BBQ-BB002 (BBC west small tiles TAC)
Entries 374560
TAC
QT Input Channel

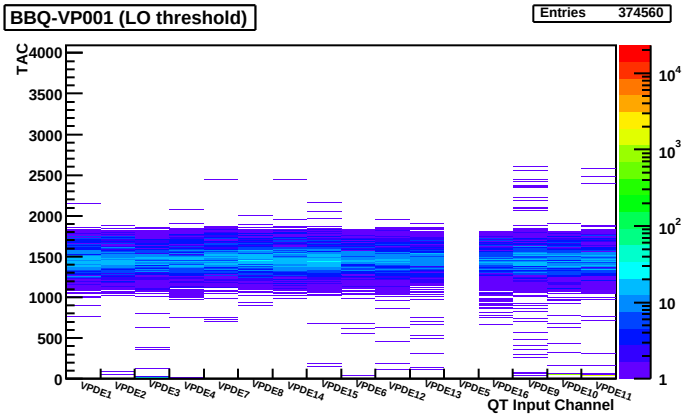

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 374560
ADC
QT Input Channel

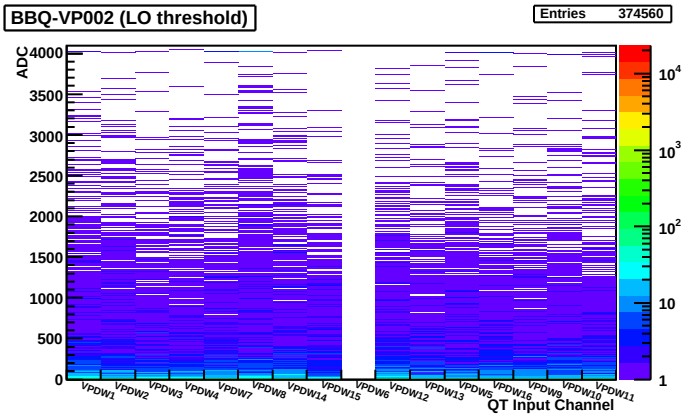

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 374560
TAC
QT Input Channel

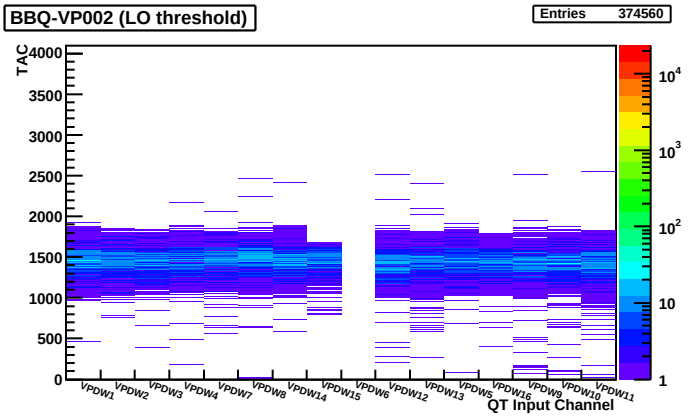

BBQ-ZD001 (ZDC TOWER)
Entries 374560
ADC

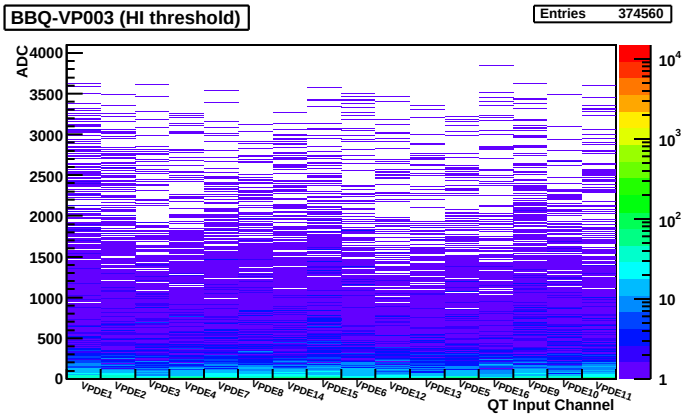

BBQ-ZD001 (ZDC TOWER)
Entries 374560
TAC

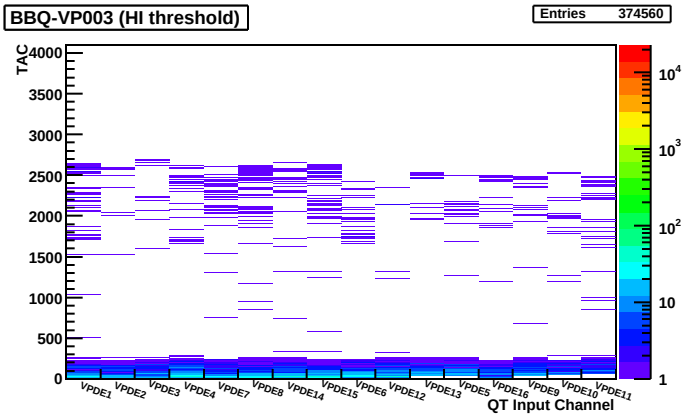

BBQ-VP001 (LO threshold)
Entries 374560
ADC
QT Input Channel

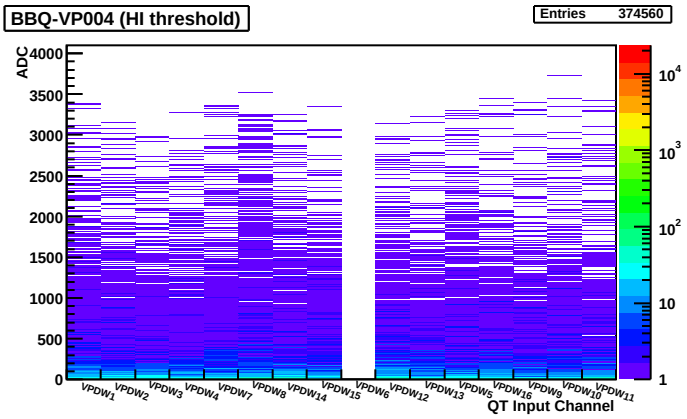

BBQ-VP001 (LO threshold)
Entries 374560
TAC
QT Input Channel

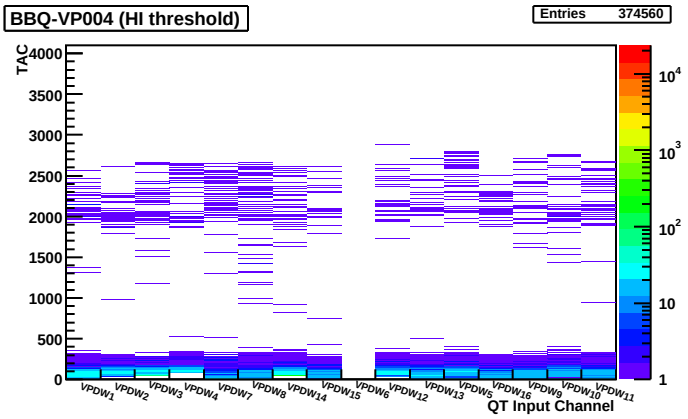

BBQ-VP002 (LO threshold)
Entries 374560
ADC
QT Input Channel

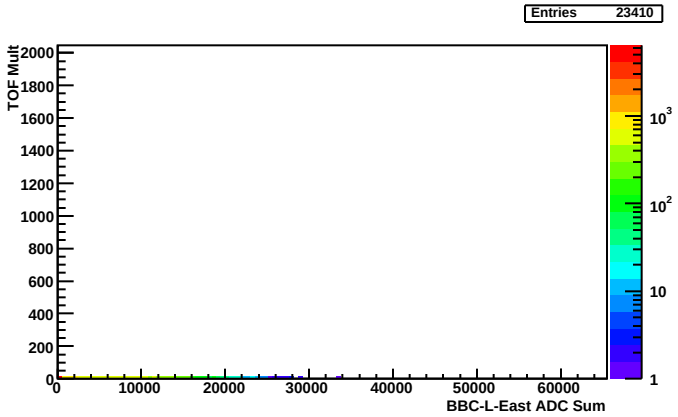

BBQ-VP002 (LO threshold)
Entries 374560
TAC
QT Input Channel

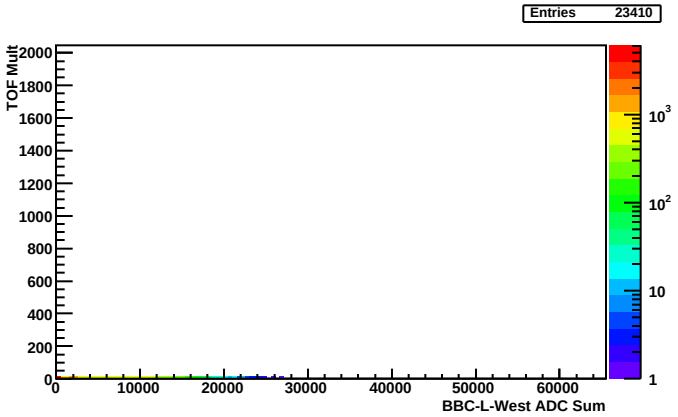

BBQ-VP003 (HI threshold)
Entries 374560
ADC
QT Input Channel

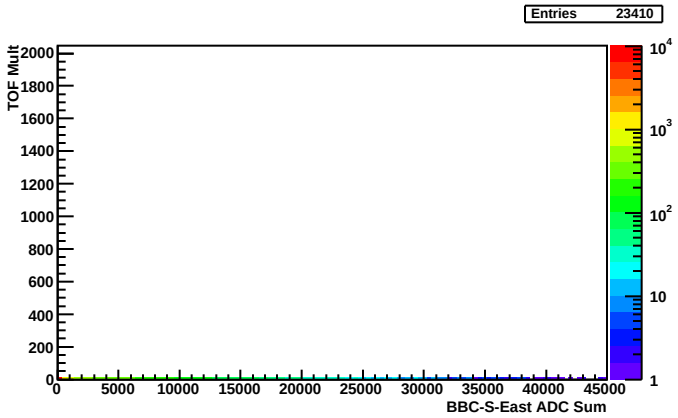

BBQ-VP003 (HI threshold)
Entries 374560
TAC
QT Input Channel

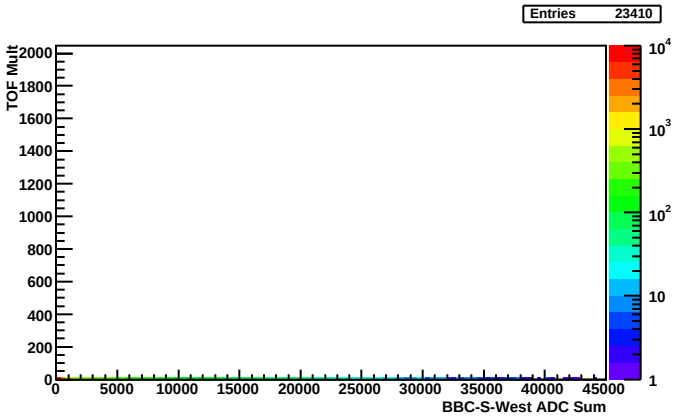

BBQ-VP004 (HI threshold)
Entries 374560
ADC
QT Input Channel

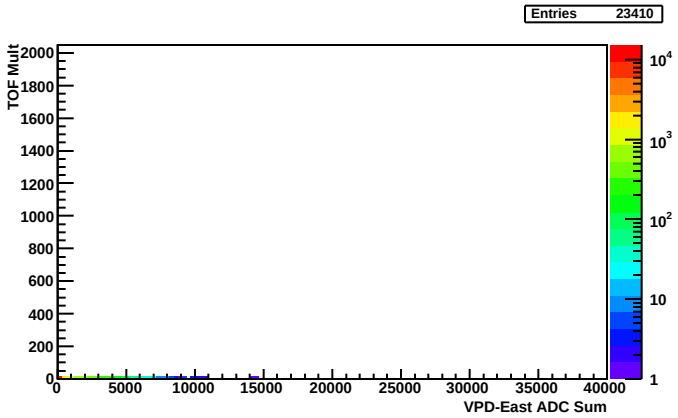

BBQ-VP004 (HI threshold)
Entries 374560
TAC
QT Input Channel

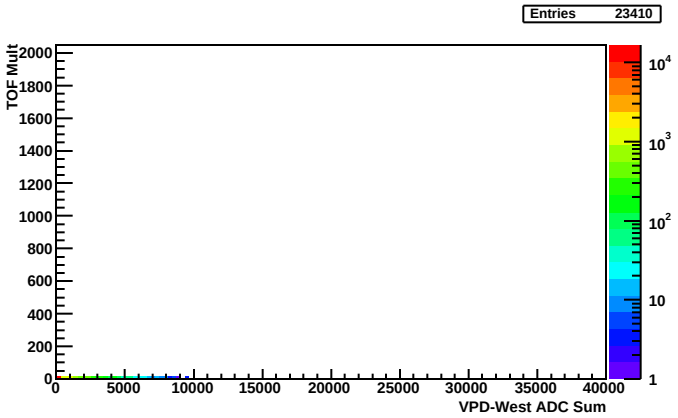

Entries 23410
TOF Mult
BBC-L-East ADC Sum

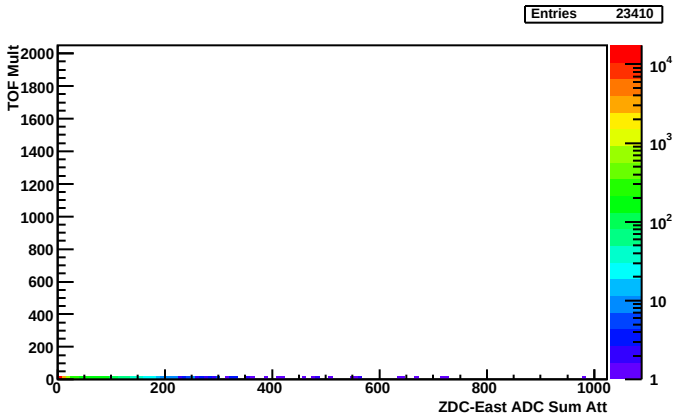

Entries 23410
TOF Mult
BBC-L-West ADC Sum

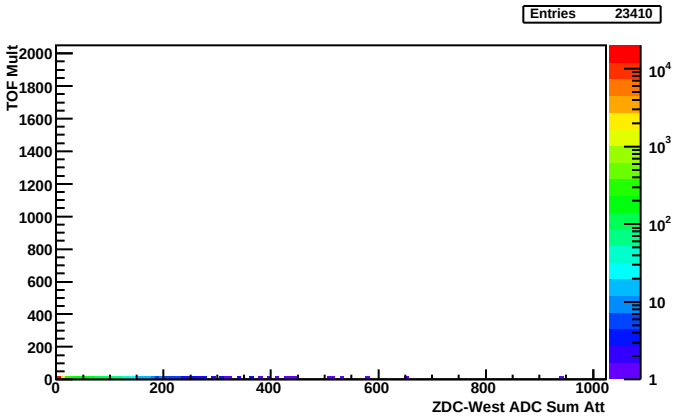

Entries 23410
TOF Mult
BBC-S-East ADC Sum

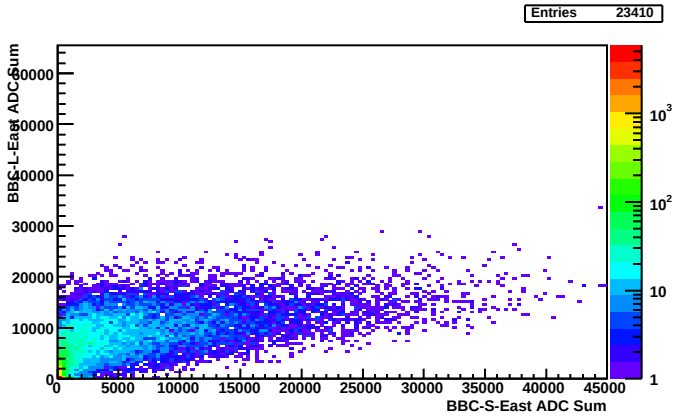

Entries 23410
TOF Mult
BBC-S-West ADC Sum

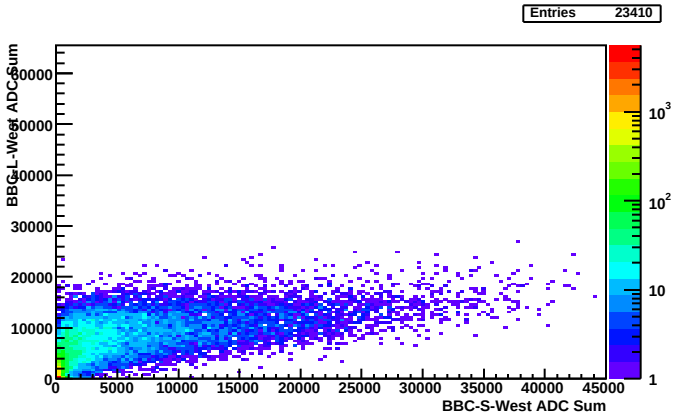

Entries 23410
TOF Mult
VPD-East ADC Sum

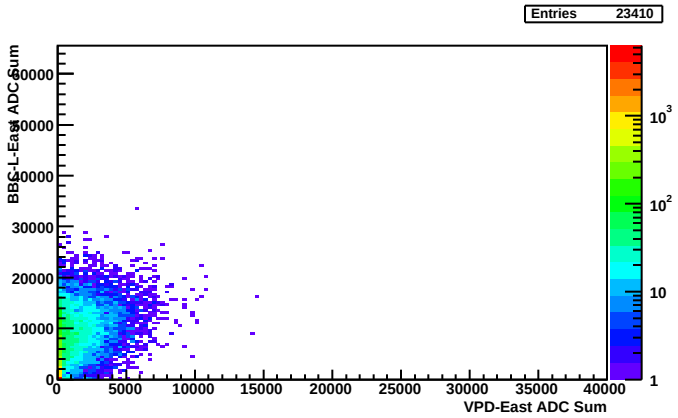

Entries 23410
TOF Mult
VPD-West ADC Sum

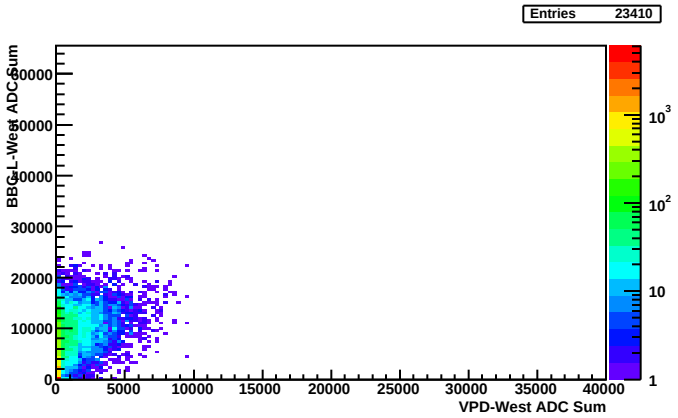

Entries 23410
TOF Mult
ZDC-East ADC Sum Att

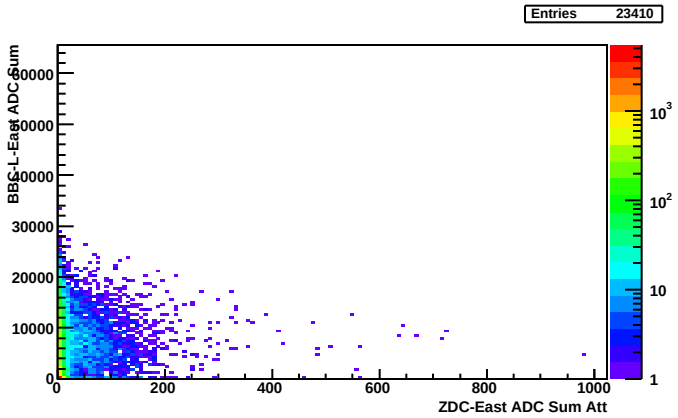

Entries 23410
TOF Mult
ZDC-West ADC Sum Att

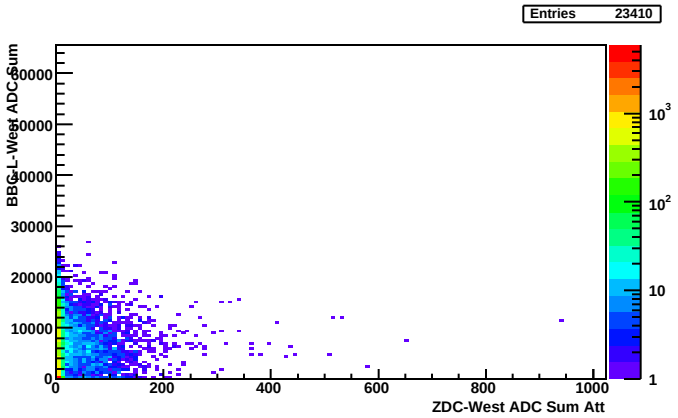

Entries 23410
BBC-L-East ADC Sum
BBC-S-East ADC Sum

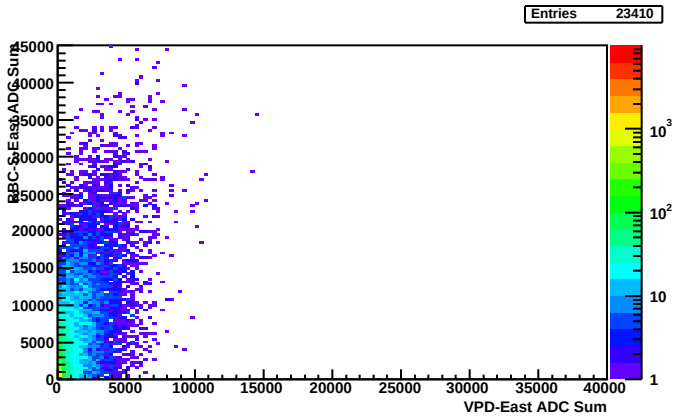

Entries 23410
BBC-L-West ADC Sum
BBC-S-West ADC Sum

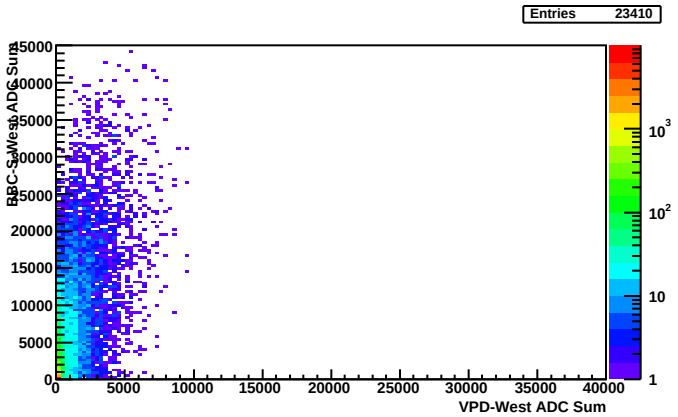

Entries 23410
BBC-L-East ADC Sum
VPD-East ADC Sum

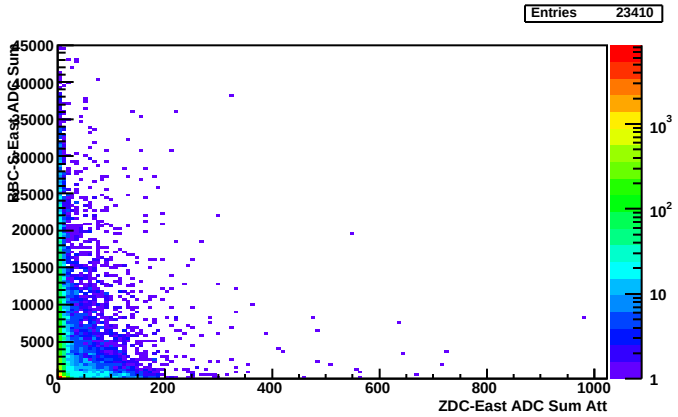

Entries 23410
BBC-L-West ADC Sum
VPD-West ADC Sum

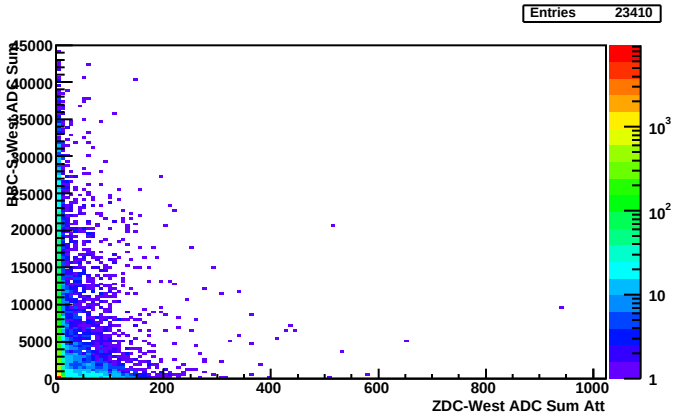

Entries 23410
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

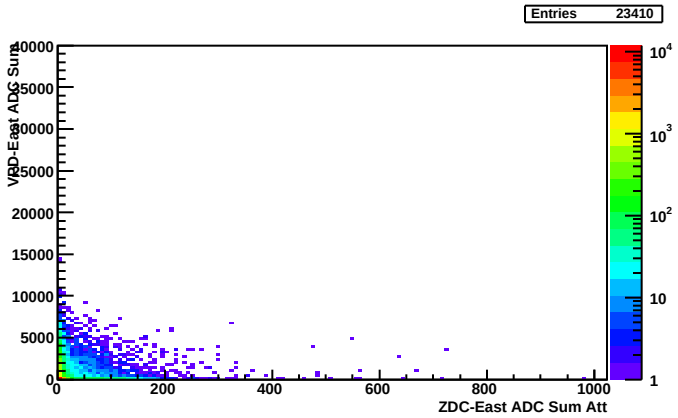

Entries 23410
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

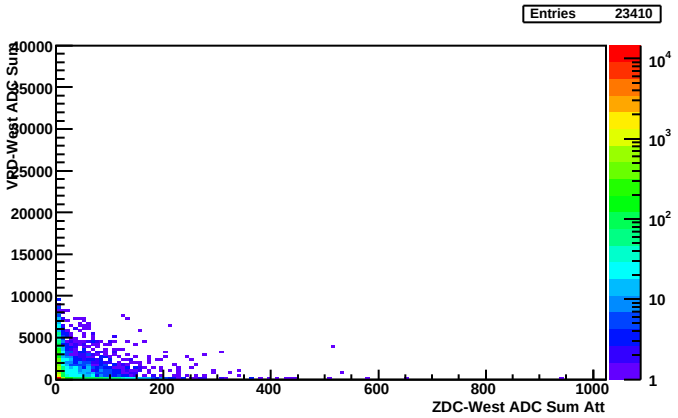

Entries 23410
BBC-S-East ADC Sum
VPD-East ADC Sum

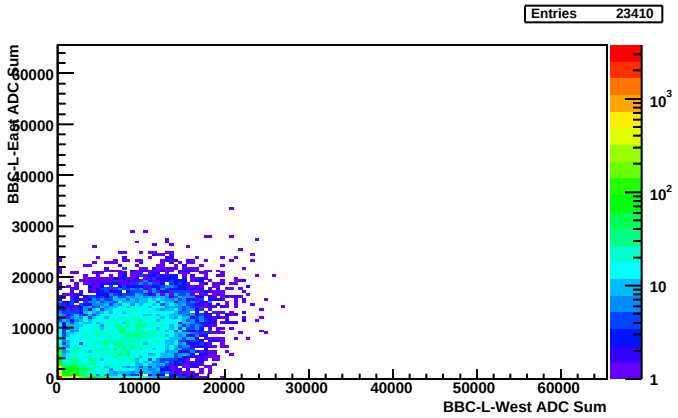

Entries 23410
BBC-S-West ADC Sum
VPD-West ADC Sum

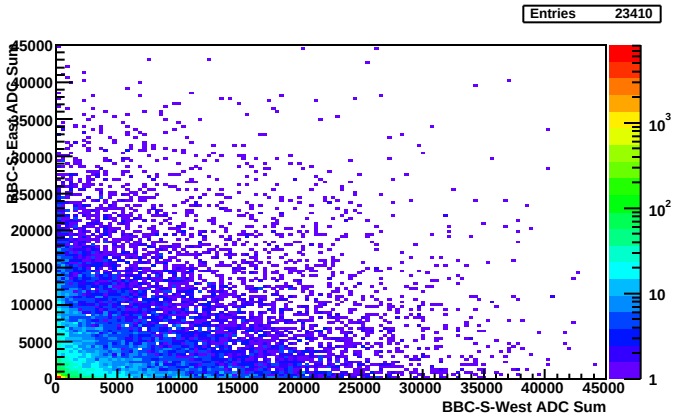

Entries 23410
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

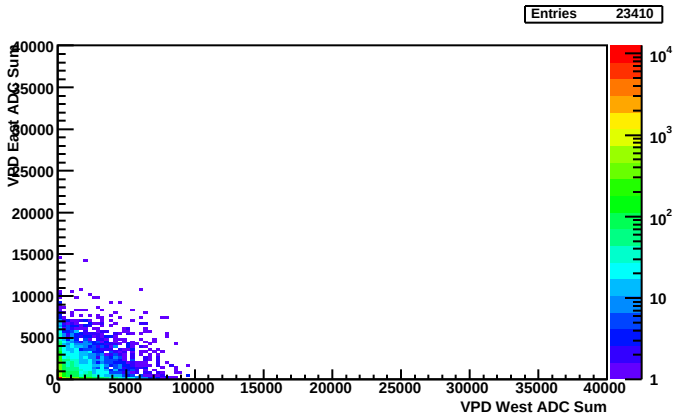

Entries 23410
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

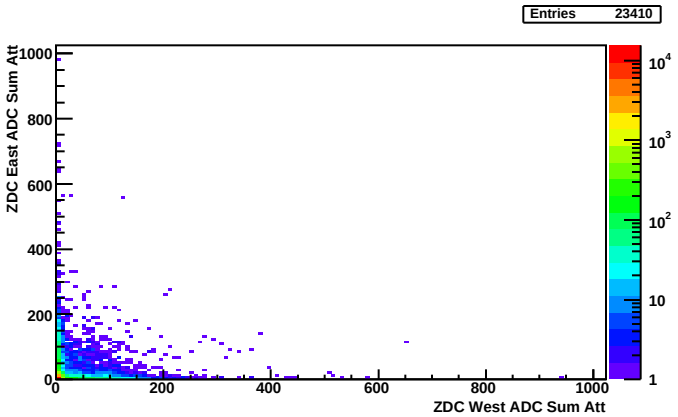

Entries 23410
VPD-East ADC Sum
ZDC-East ADC Sum Att

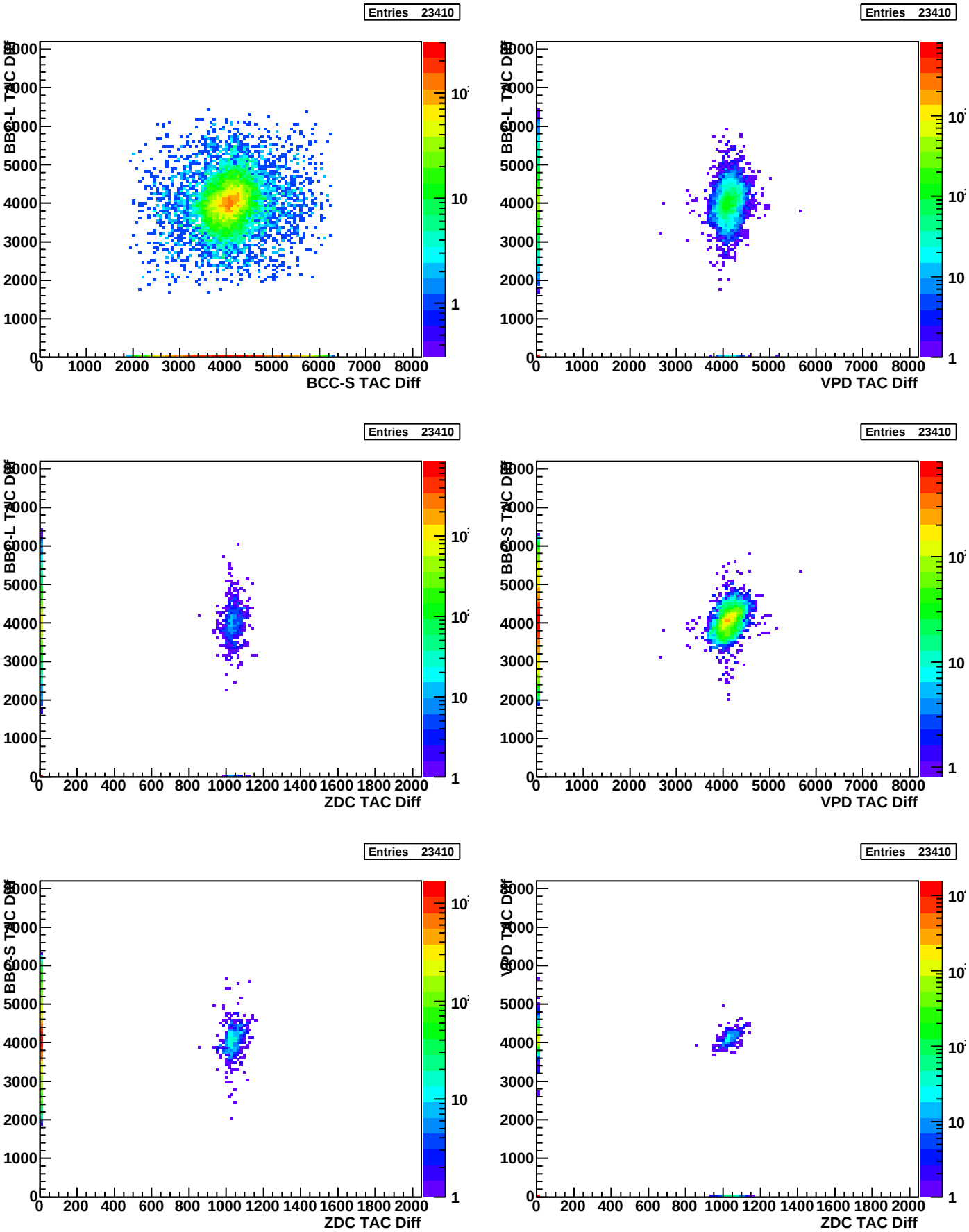

Entries 23410
VPD-West ADC Sum
ZDC-West ADC Sum Att

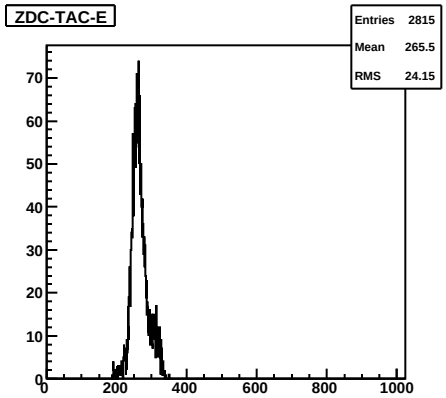

Entries 23410
BBC-L-East ADC Sum
BBC-L-West ADC Sum

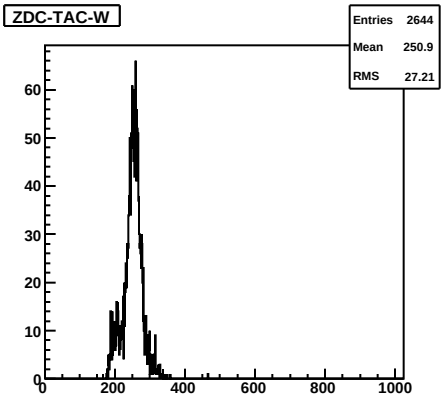

Entries 23410
BBC-S-East ADC Sum
BBC-S-West ADC Sum

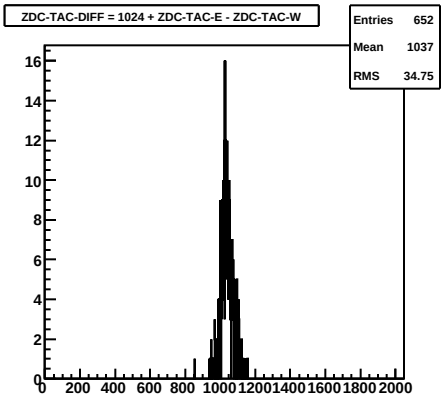

Entries 23410
VPD East ADC Sum
VPD West ADC Sum

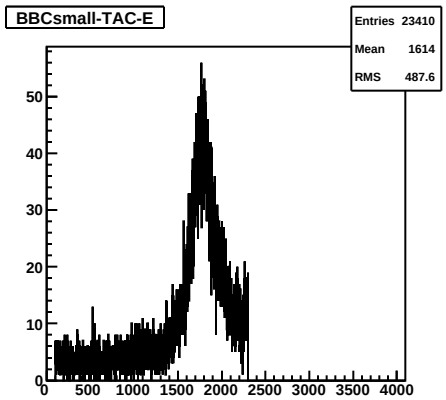

Entries 23410
ZDC East ADC Sum Att
ZDC West ADC Sum Att

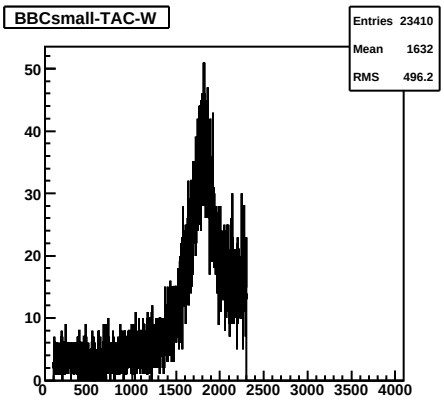

Entries 23410
BBC-L TAC Diff
BCC-S TAC Diff
VPD TAC Diff
ZDC TAC Diff
BBC-S TAC Diff

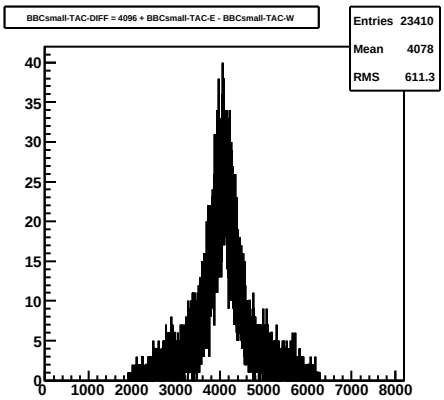

ZDC-TAC-E
Entries 2815
Mean 265.5
RMS 24.15

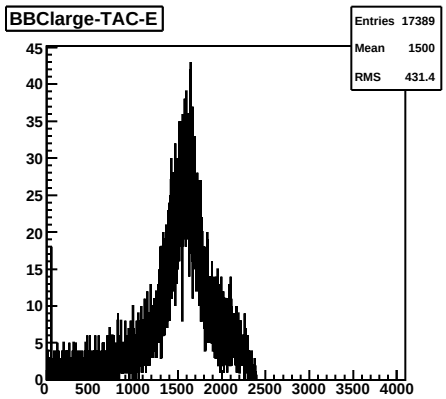

ZDC-TAC-W
Entries 2644
Mean 250.9
RMS 27.21

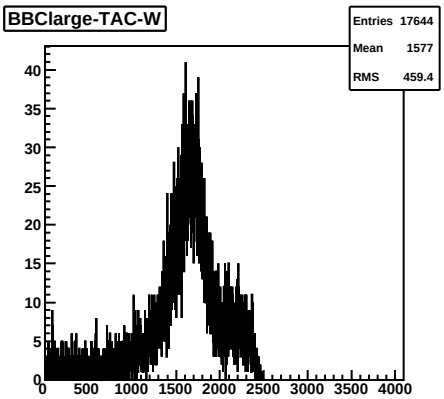

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 652
Mean 1037
RMS 34.75

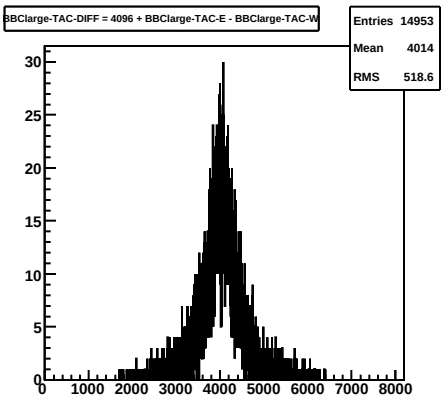

BBCsmall-TAC-E
Entries 23410
Mean 1614
RMS 487.6

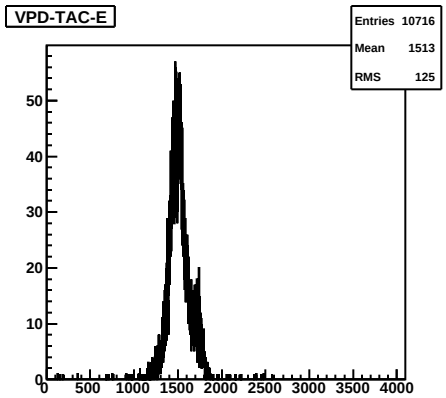

BBCsmall-TAC-W
Entries 23410
Mean 1632
RMS 496.2

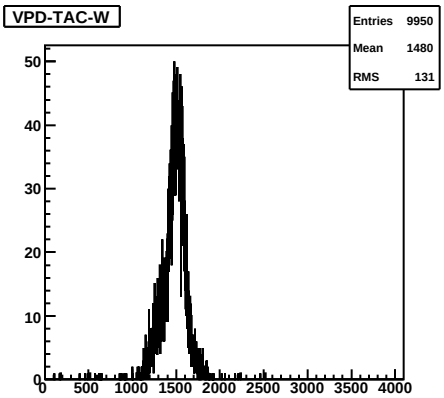

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 23410
Mean 4078
RMS 611.3

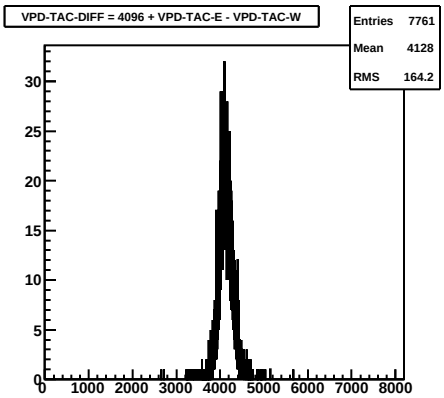

BBClarge-TAC-E
Entries 17389
Mean 1500
RMS 431.4

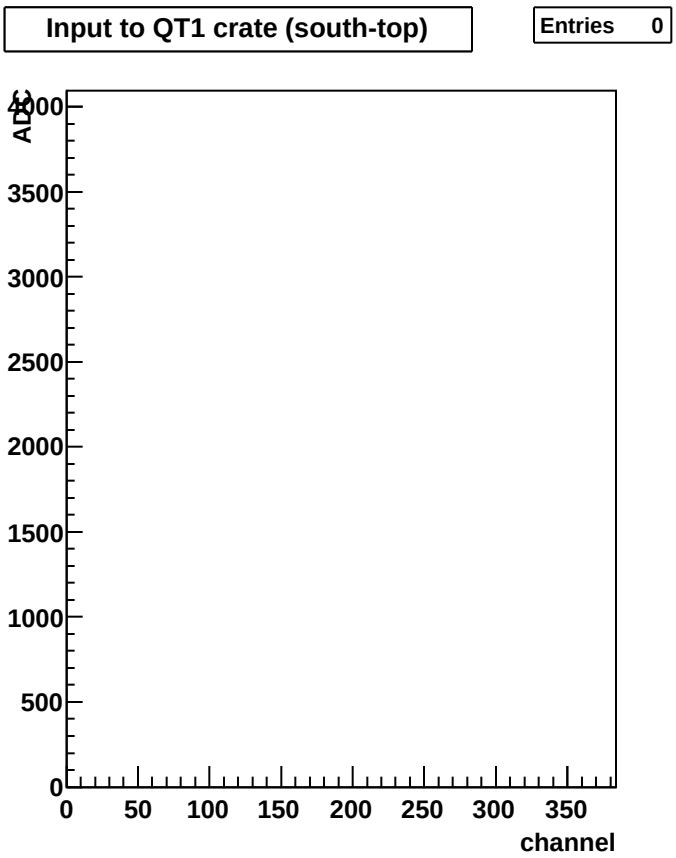

BBClarge-TAC-W
Entries 17644
Mean 1577
RMS 459.4

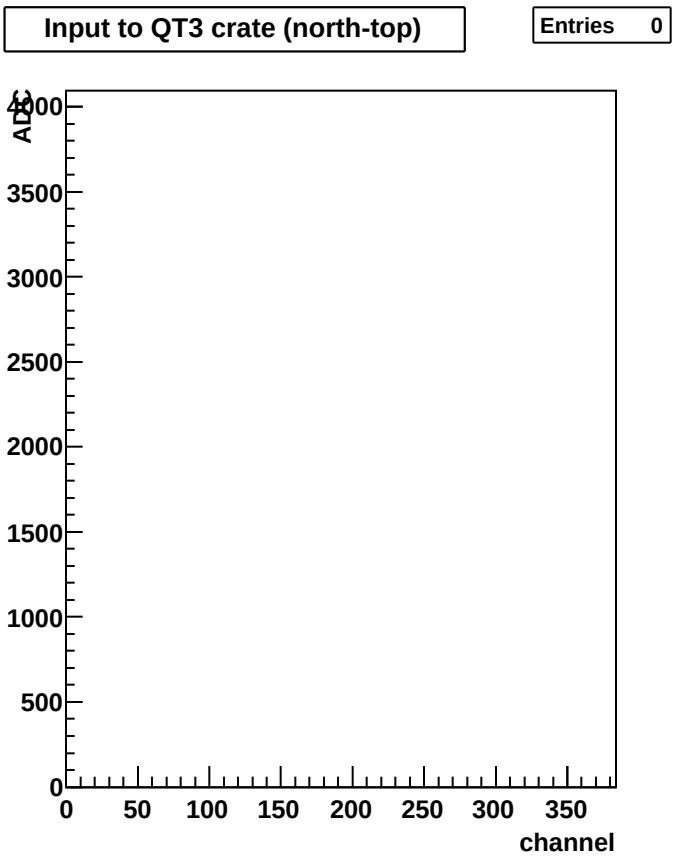

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 14953
Mean 4014
RMS 518.6

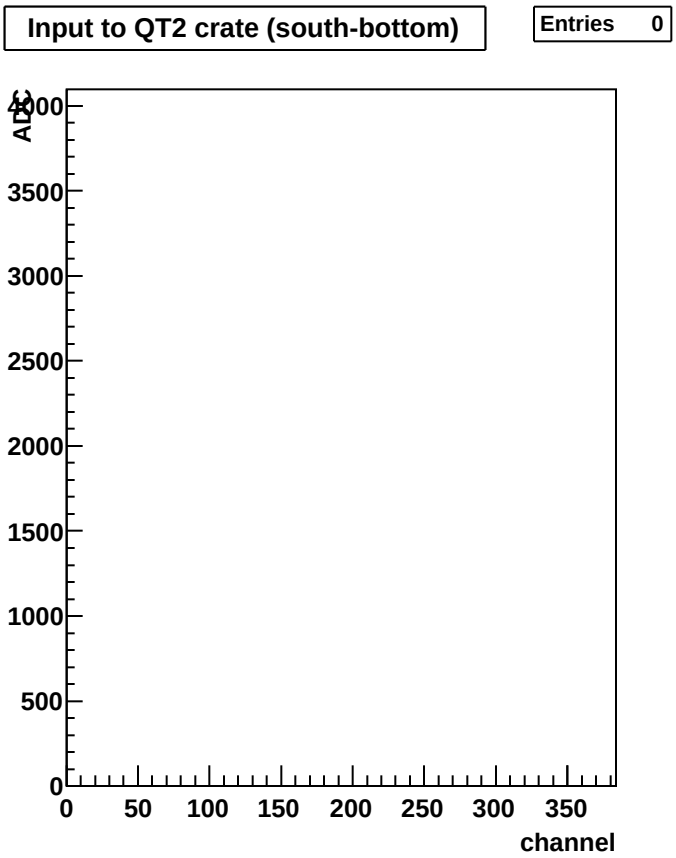

VPD-TAC-E
Entries 10716
Mean 1513
RMS 125

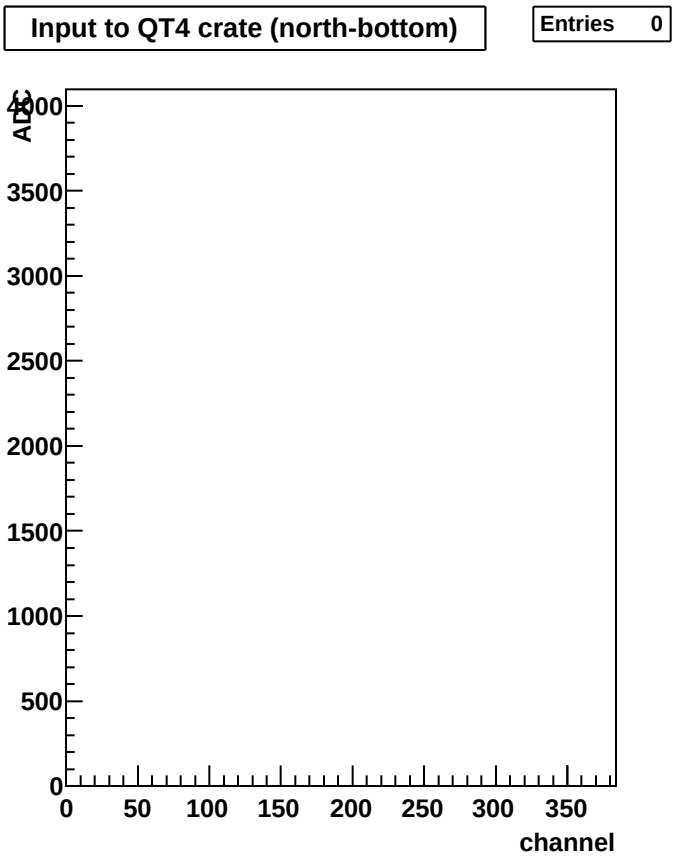

VPD-TAC-W
Entries 9950
Mean 1480
RMS 131

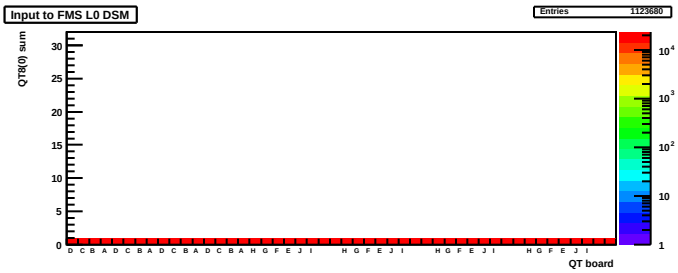

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 7761
Mean 4128
RMS 164.2

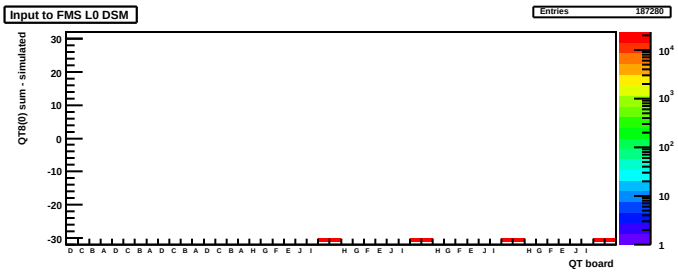

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

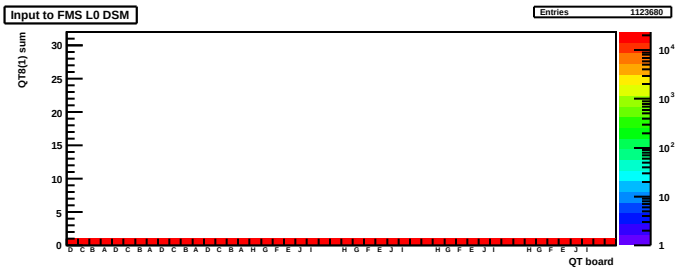

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

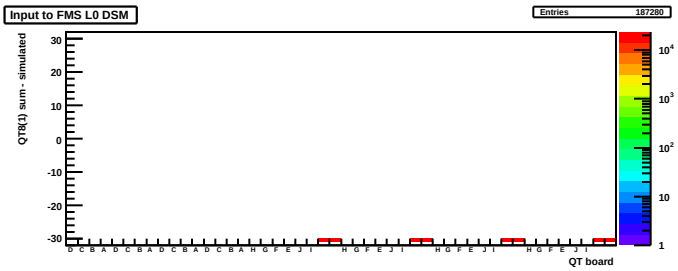

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

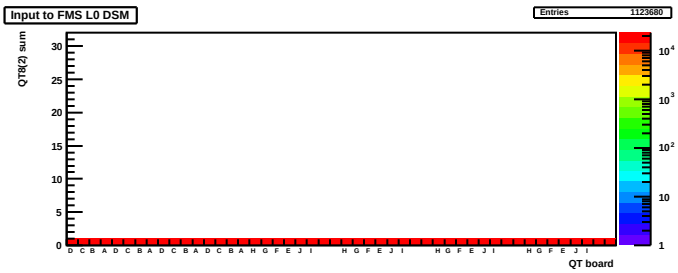

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

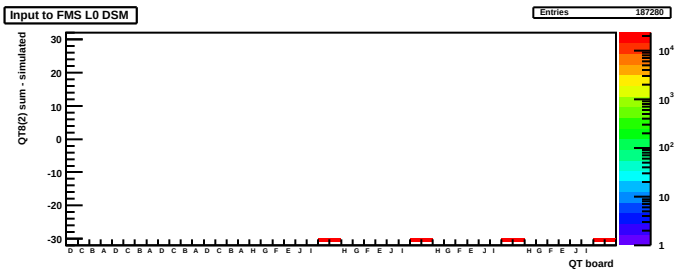

Input to FMS L0 DSM
Entries 1123680
QT8(0) sum
QT board

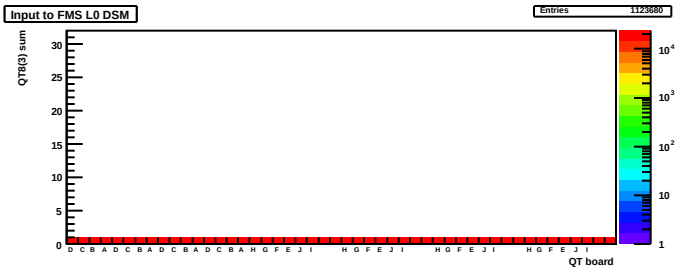

Input to FMS L0 DSM
Entries 187280
QT8(0) sum - simulated
QT board

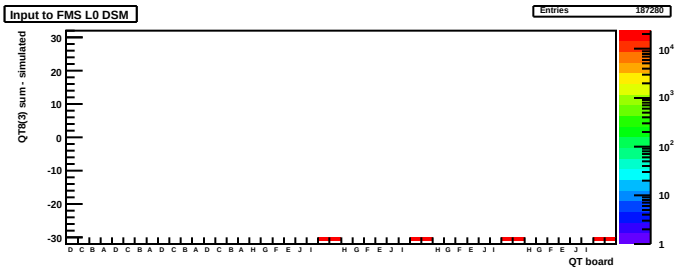

Input to FMS L0 DSM
Entries 1123680
QT8(1) sum
QT board

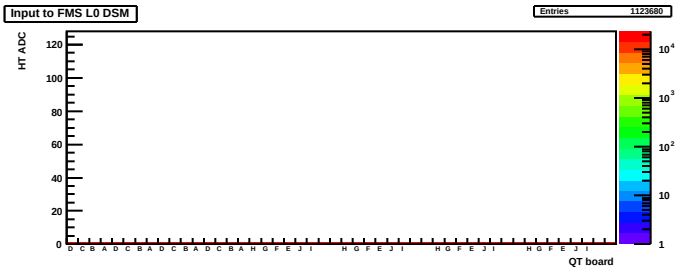

Input to FMS L0 DSM
Entries 187280
QT8(1) sum - simulated
QT board

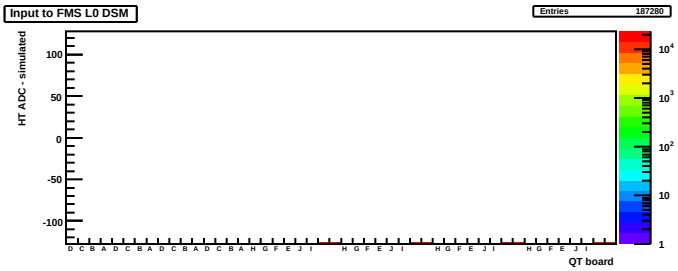

Input to FMS L0 DSM
Entries 1123680
QT8(2) sum
QT board

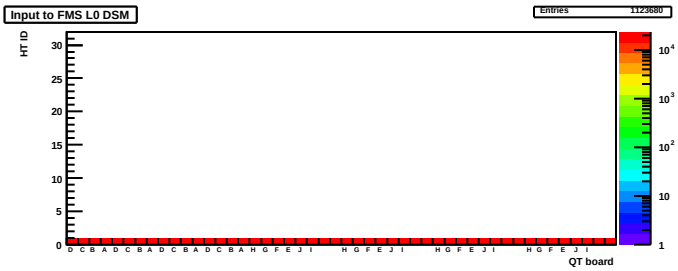

Input to FMS L0 DSM
Entries 187280
QT8(2) sum - simulated
QT board

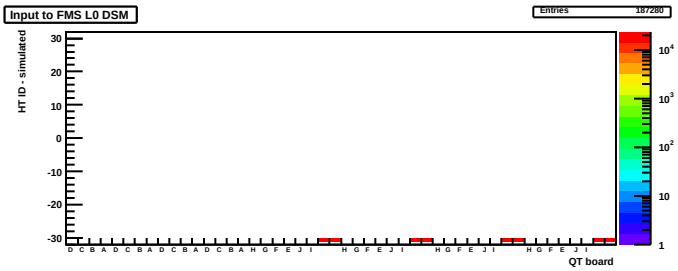

Input to FMS L0 DSM
Entries 1123680
QT8(3) sum
QT board

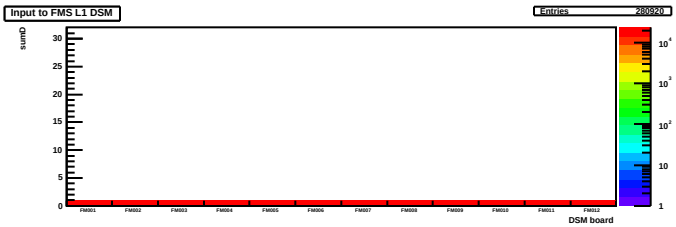

Input to FMS L0 DSM
Entries 187280
QT8(3) sum - simulated
QT board

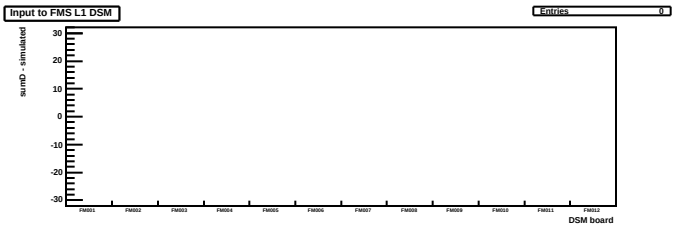

Input to FMS L0 DSM
Entries 1123680
HT ADC
QT board

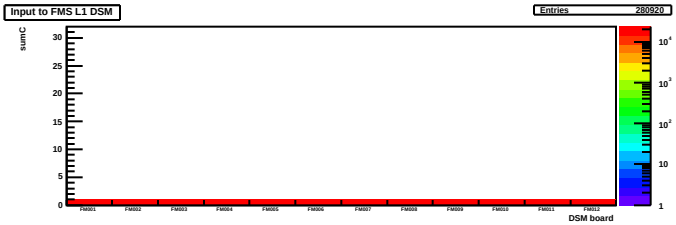

Input to FMS L0 DSM
Entries 187280
HT ADC - simulated
QT board

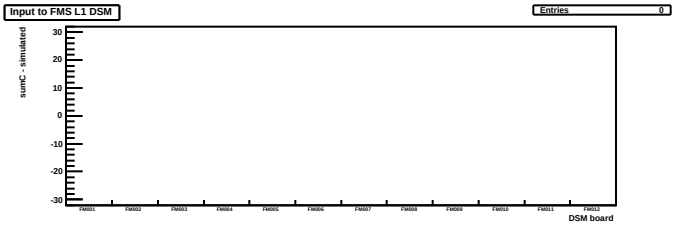

Input to FMS L0 DSM
Entries 1123680
HT ID
QT board

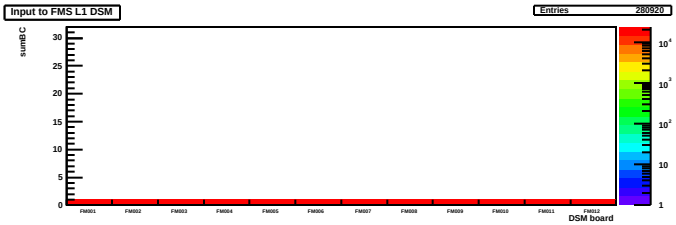

Input to FMS L0 DSM
Entries 187280
HT ID - simulated
QT board

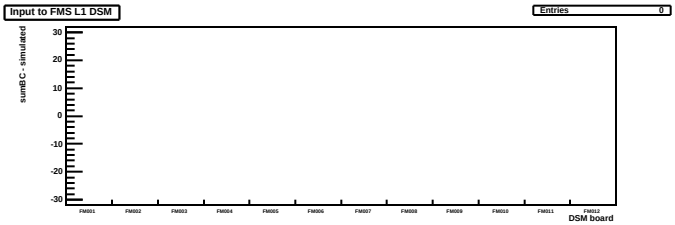

Input to FMS L1 DSM
Entries 280920
sumD
DSM board

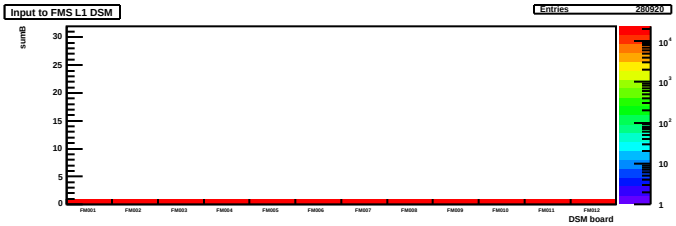

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

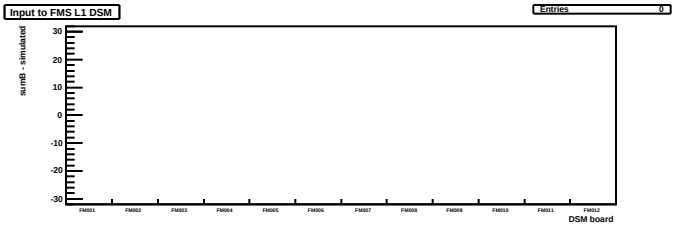

Input to FMS L1 DSM
Entries 280920
sumC
DSM board

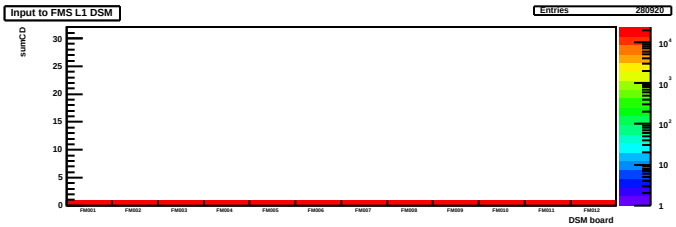

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

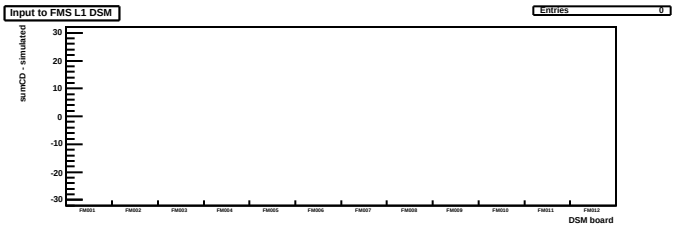

Input to FMS L1 DSM
Entries 280920
sumBC
DSM board

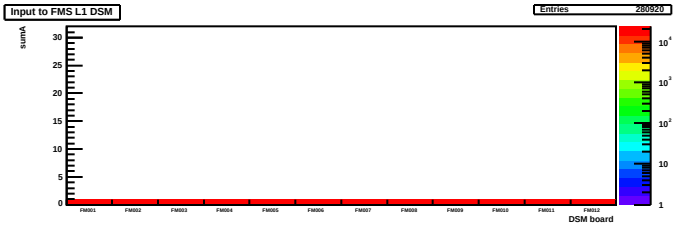

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

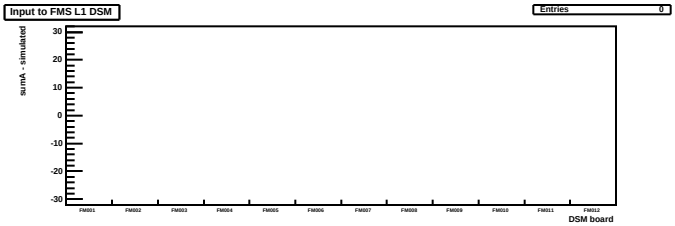

Input to FMS L1 DSM
Entries 280920
sumB
DSM board

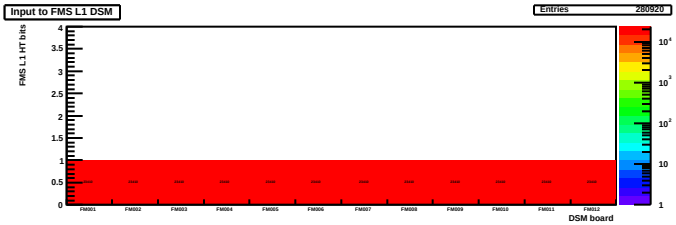

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

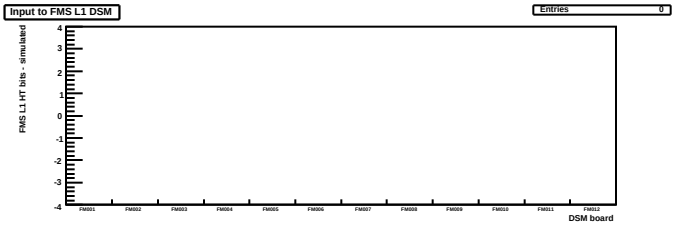

Input to FMS L1 DSM
Entries 280920
sumCD
DSM board

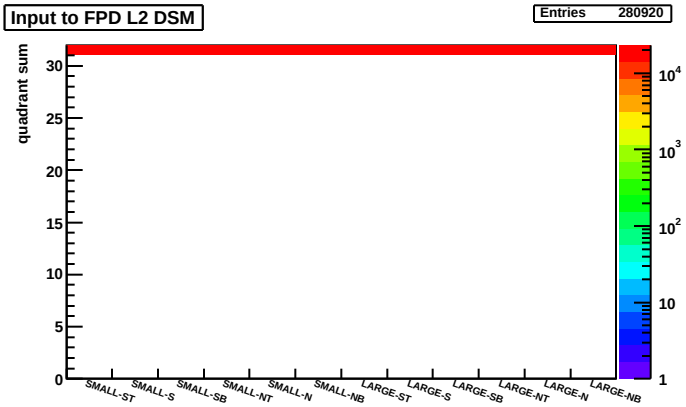

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

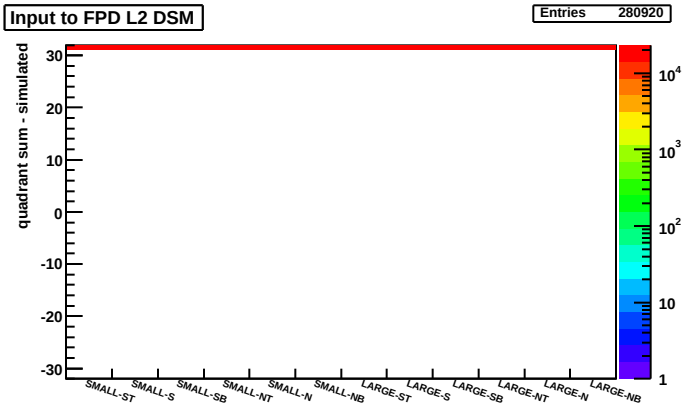

Input to FMS L1 DSM
Entries 280920
sumA
DSM board

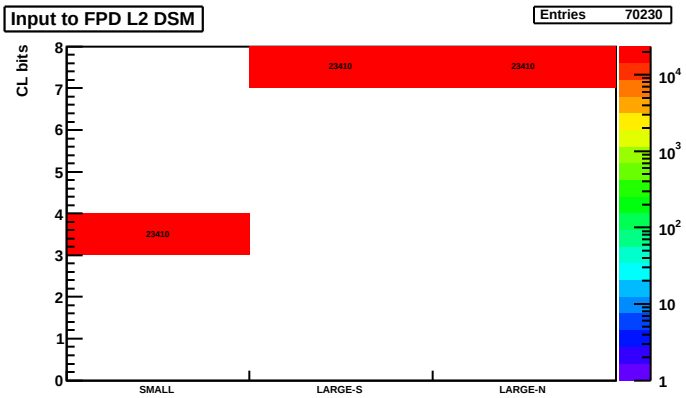

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

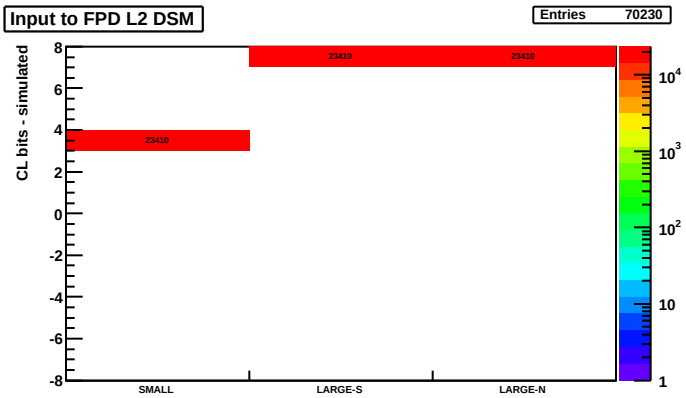

Input to FMS L1 DSM
Entries 280920
FMS L1 HT bits
DSM board

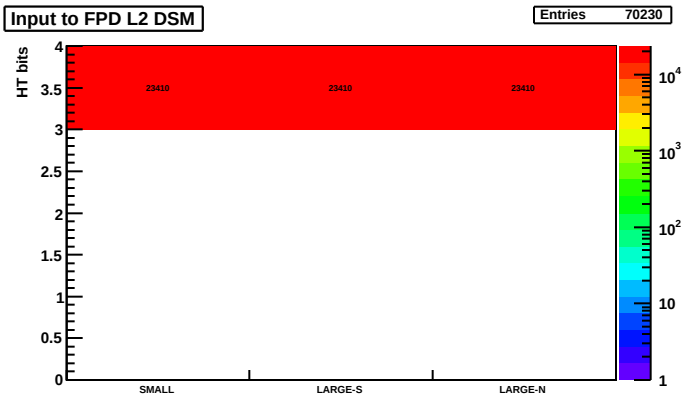

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

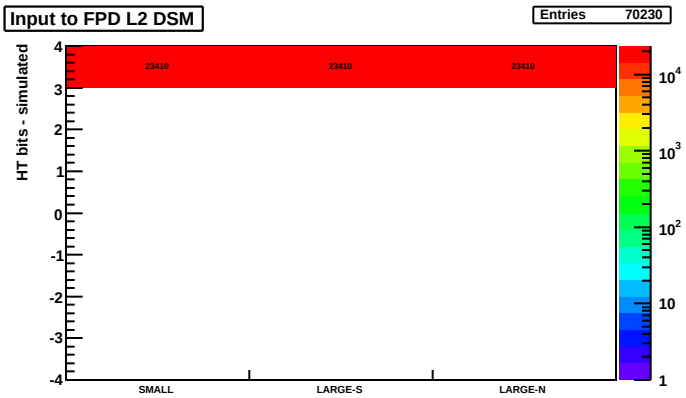

Input to FPD L2 DSM
Entries 280920
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

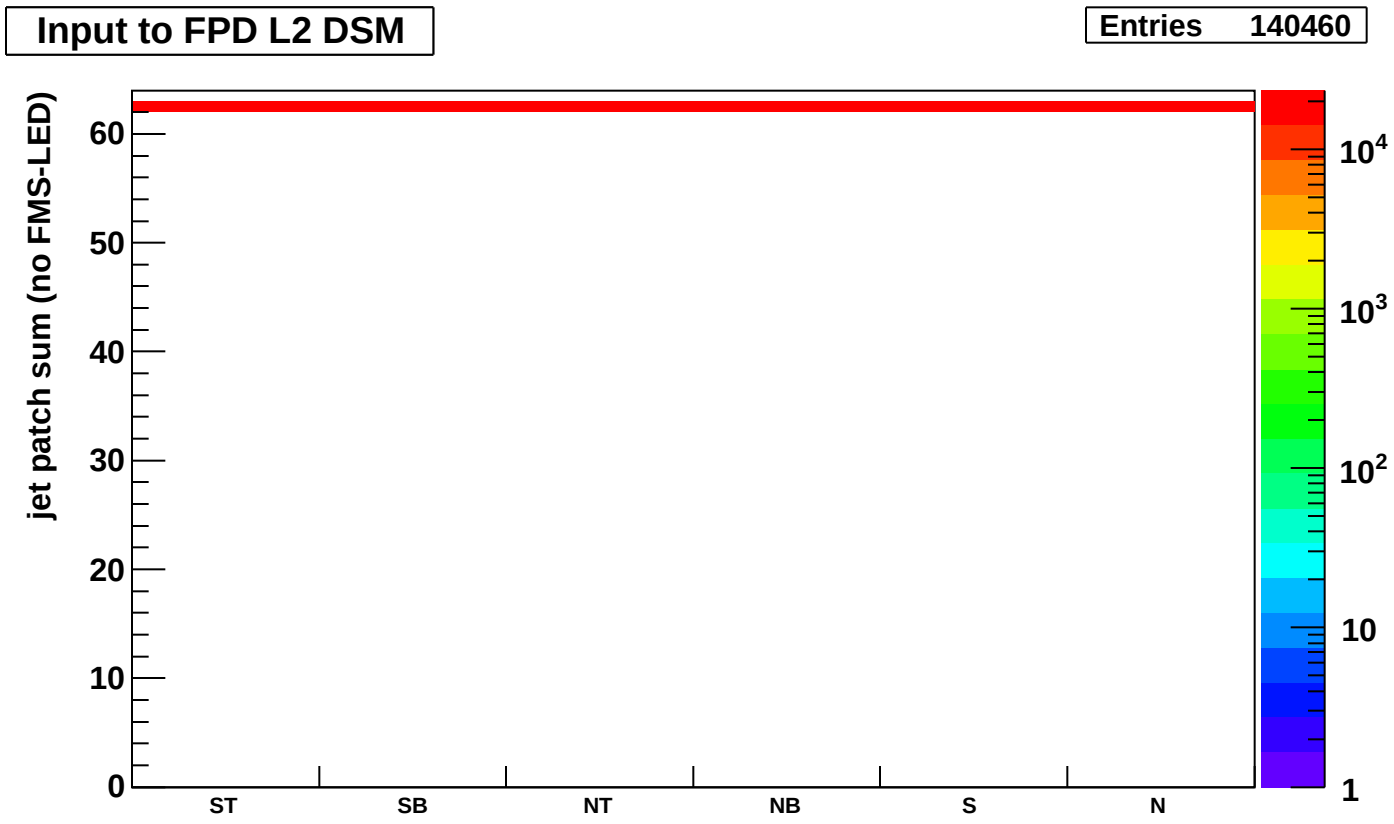

Input to FPD L2 DSM
Entries 280920
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

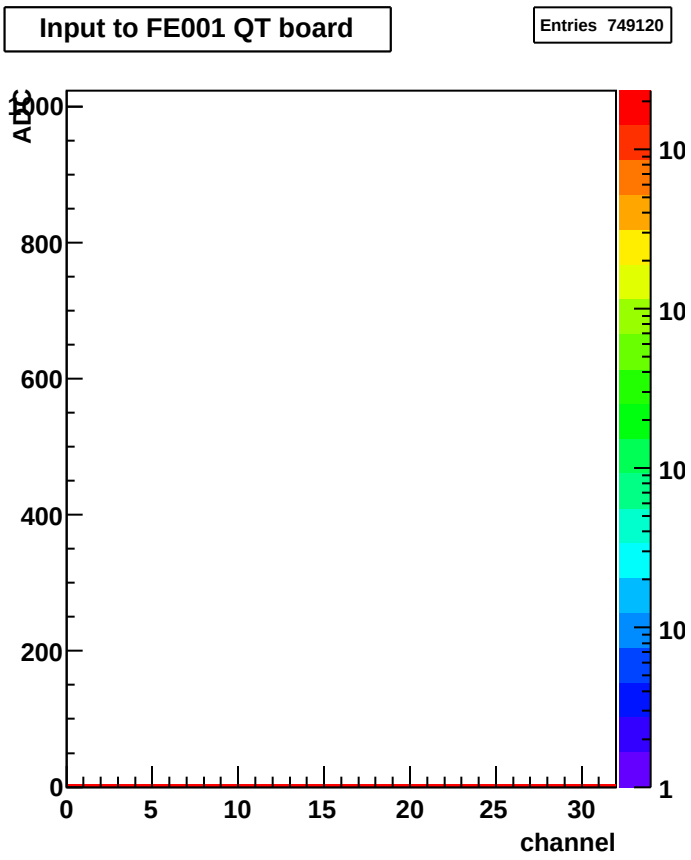

Input to FPD L2 DSM
Entries 70230
CL bits
23410
23410
23410
SMALL
LARGE-S
LARGE-N

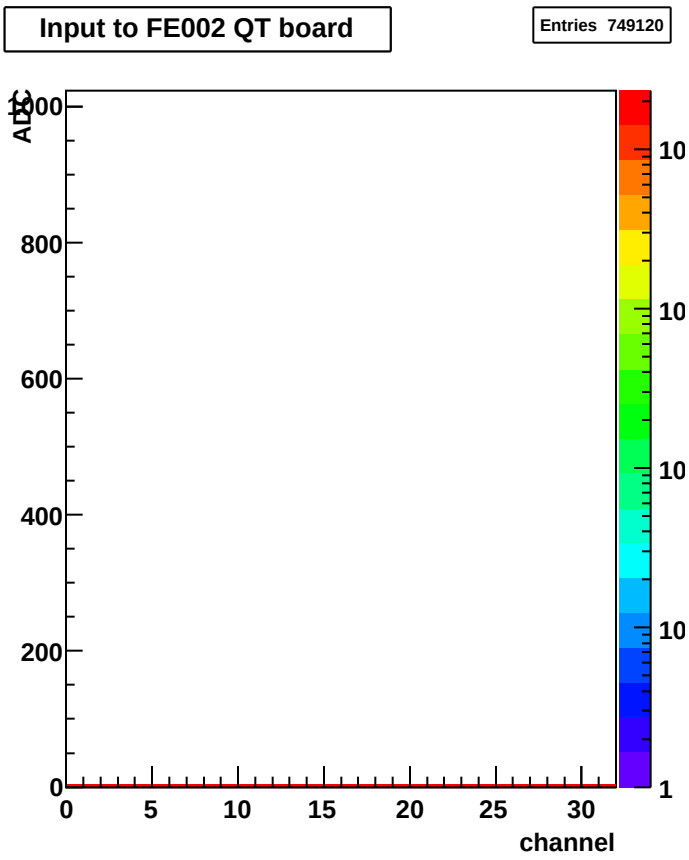

Input to FPD L2 DSM
Entries 70230
CL bits - simulated
23410
23410
23410
SMALL
LARGE-S
LARGE-N

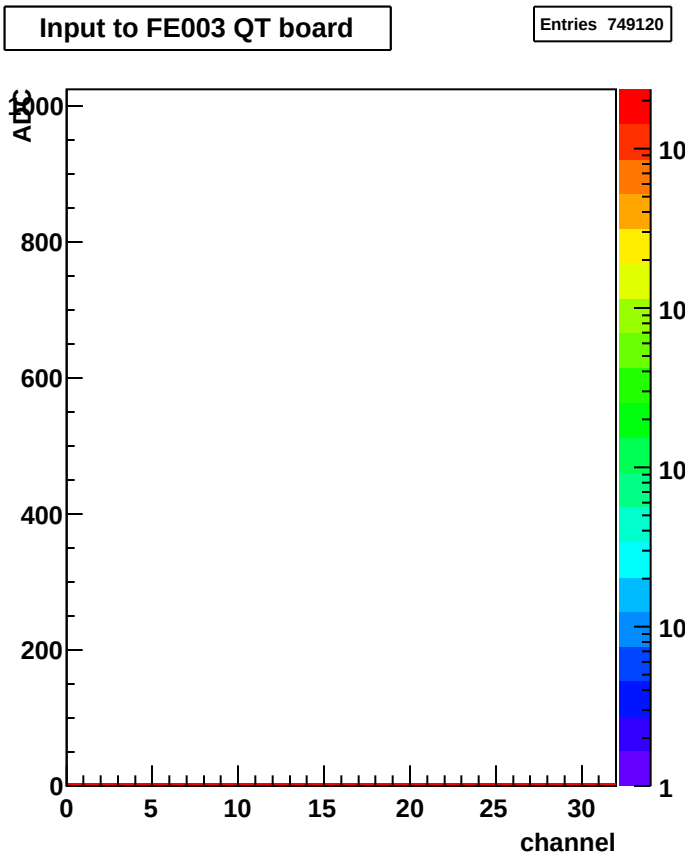

Input to FPD L2 DSM
Entries 70230
HT bits
23410
23410
23410
SMALL
LARGE-S
LARGE-N

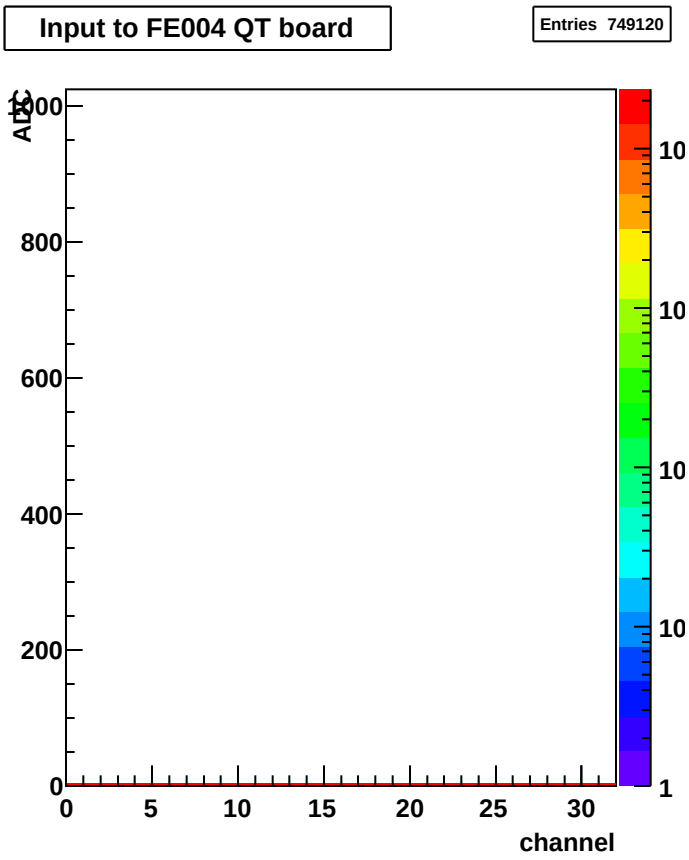

Input to FPD L2 DSM
Entries 70230
HT bits - simulated
23410
23410
23410
SMALL
LARGE-S
LARGE-N

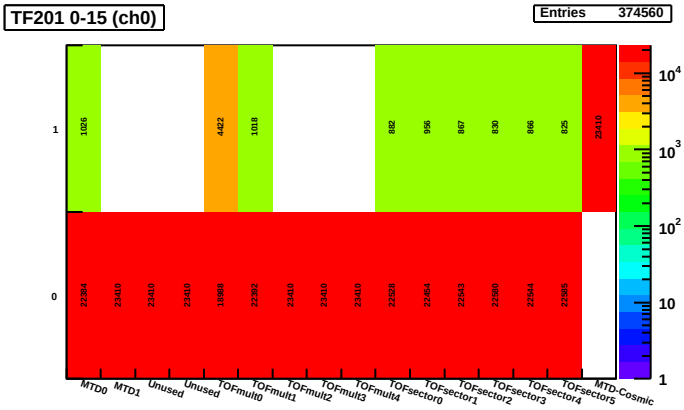

Input to FPD L2 DSM
Entries 140460
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

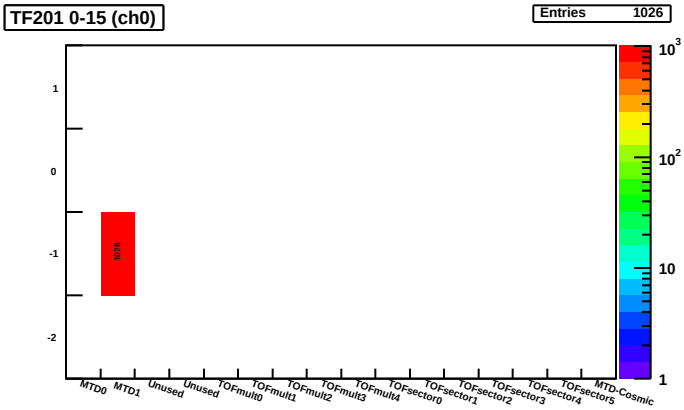

Input to FE001 QT board
Entries 749120
ADC
channel

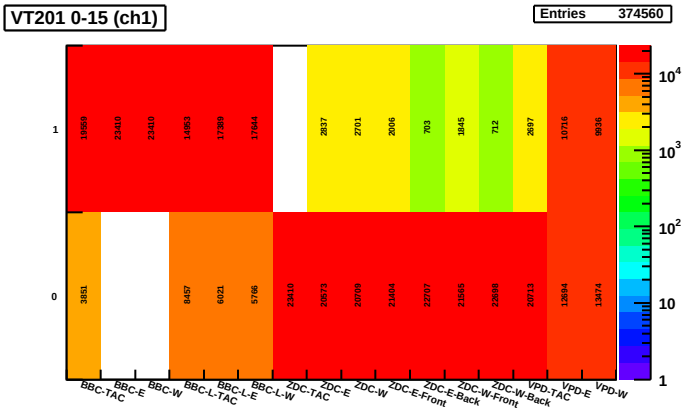

Input to FE002 QT board
Entries 749120
ADC
channel

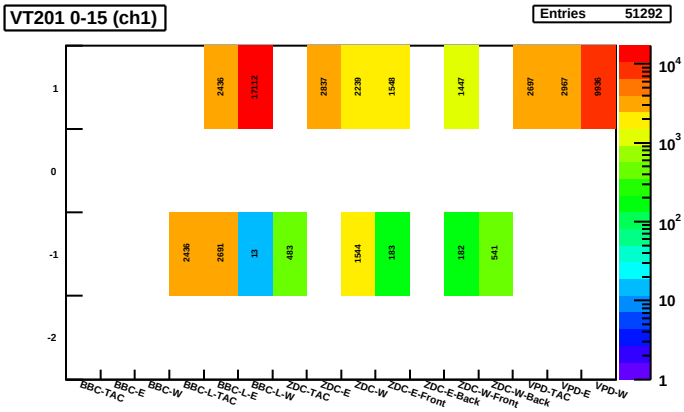

Input to FE003 QT board
Entries 749120
ADC
channel

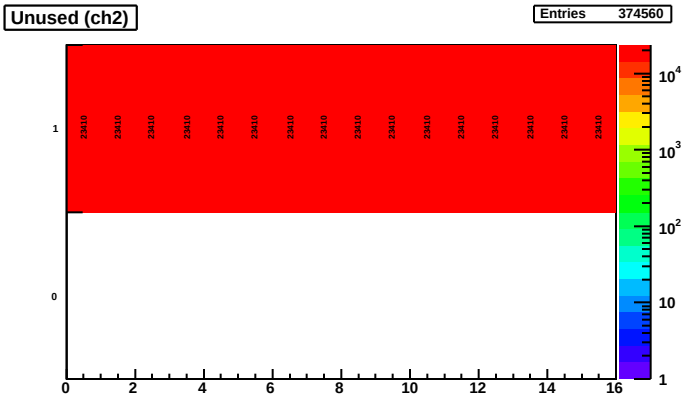

Input to FE004 QT board
Entries 749120
ADC
channel

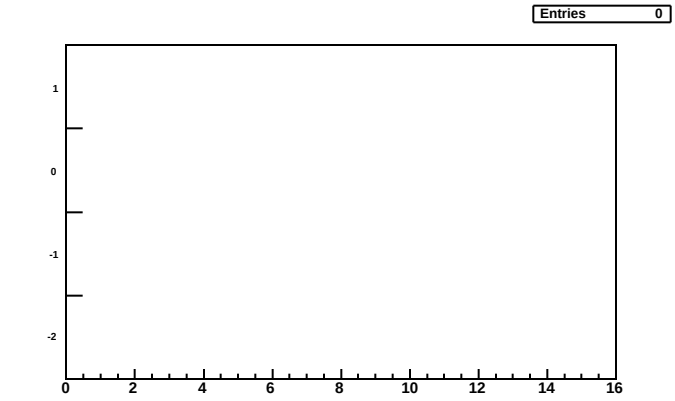

TF201 0-15 (ch0)
Entries 374560
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

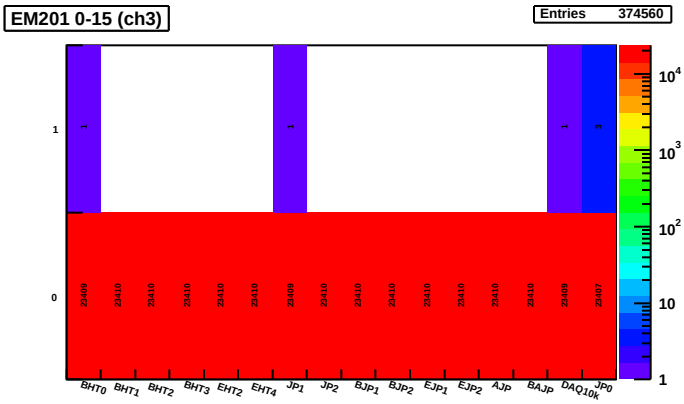

TF201 0-15 (ch0)
Entries 1026
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 374560
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 51292
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


Unused (ch2)
Entries 374560


Entries 0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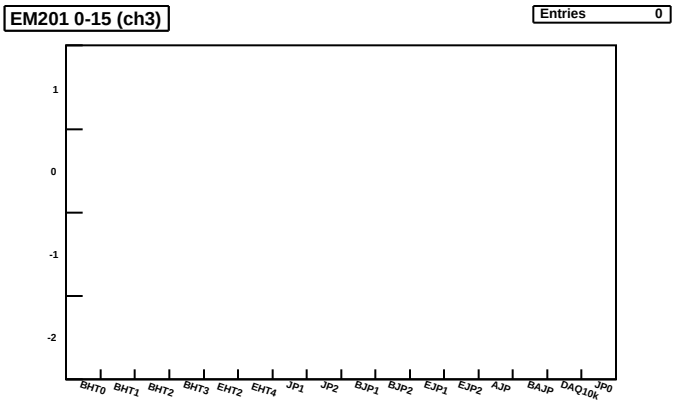
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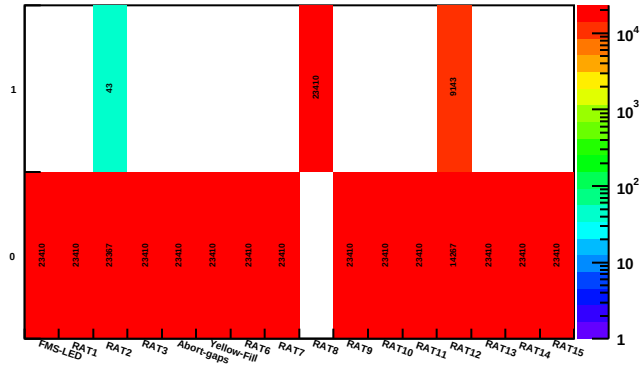
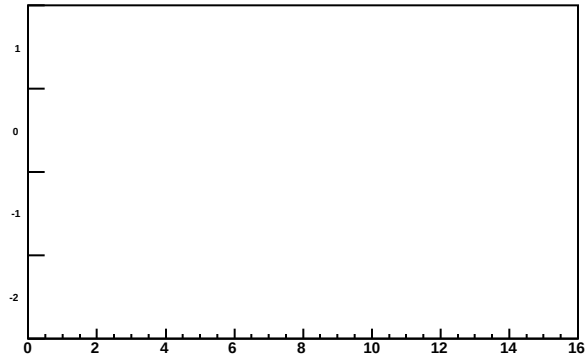
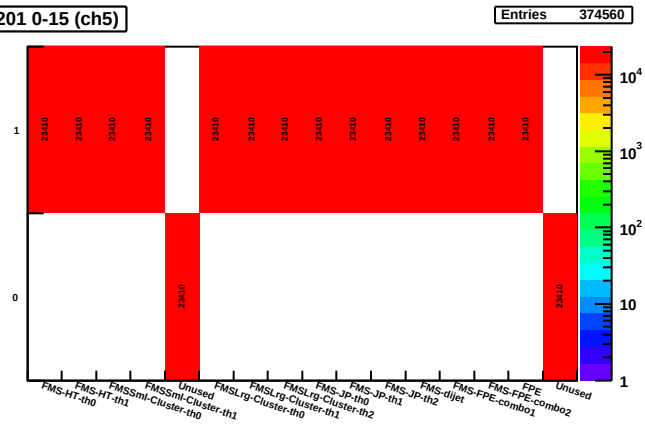
RAT board (ch4)





FP201 0-15 (ch5)



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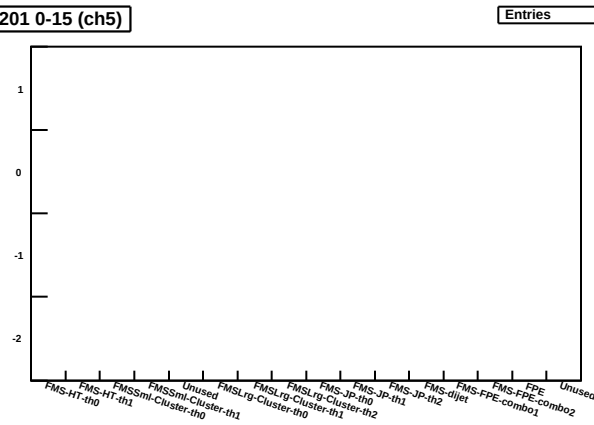
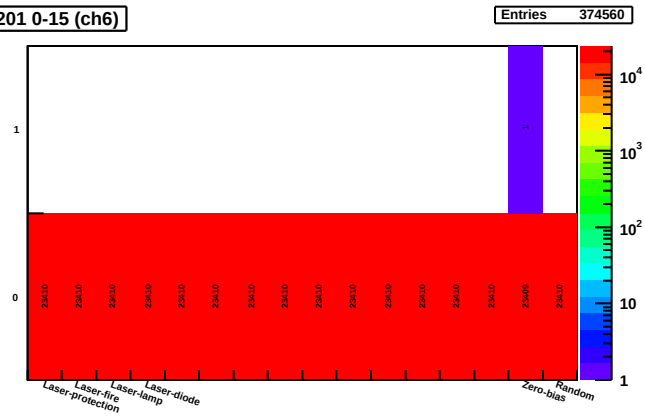
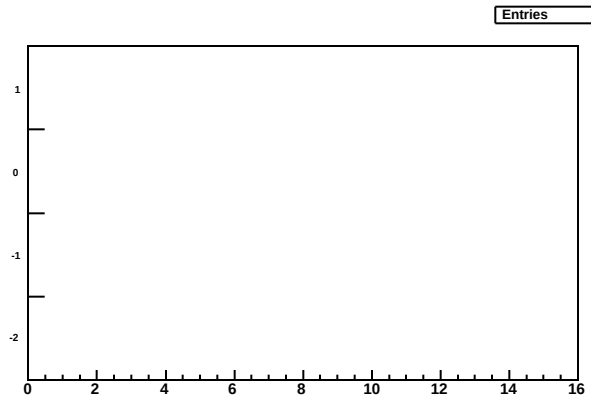
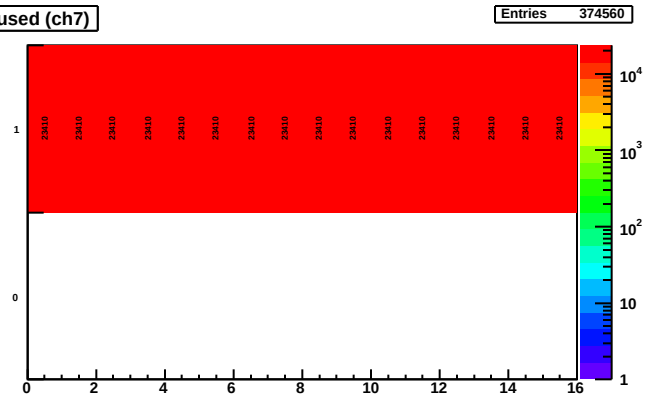
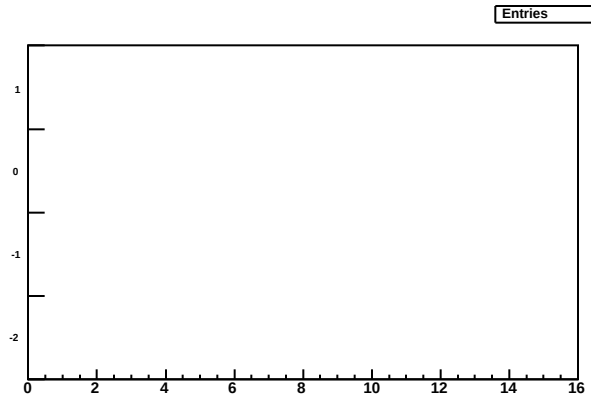


ST201 0-15 (ch6)





Unused (ch7)